

# GEOGRAPHY (GRG)

## Geography (GRG) Courses

### **GRG 5003. Research Design and Spatial Analysis. (3-0) 3 Credit Hours.**

An investigation of the conceptualization and design of research and the analysis of spatial data. The course reviews pitfalls in research, the development of theory and formulation of hypotheses, sampling, and the testing of hypotheses with techniques appropriate to the level of measurement. The calculation and interpretation of central tendency and dispersion and the use of bivariate techniques such as correlation and multivariate regression will be covered. Students will use standard statistical packages, such as R Studio, to gain first-hand experience in research design and problem-solving with exemplary data sets offering them the opportunity to investigate their interests. Course Fee: GL01 \$90.

### **GRG 5013. Geographic Thought. (3-0) 3 Credit Hours.**

A topical course emphasizing theories and concepts at the frontier of human or physical geography. The content of this course will vary. Consult with the Instructor or the Graduate Advisor of Record for information on content in a given semester. Course may be repeated for credit when topics vary. Course Fee: GL01 \$90.

### **GRG 5203. Global Migration in Local Context. (3-0) 3 Credit Hours.**

This course investigates the global flows of labor and refugee migration in the contemporary world, and their impact on both origins and destinations at the level of country, state, and locality. These flows sustain or burden economics, transform culture and societies, and re-orient politics in ways that profoundly shape their future. Students will study the patterns, underlying causes, and consequences of these flows, and report on specific examples of them. They will learn how this migration affects local labor needs, entrepreneurship, cultural mores, social integration, spatial segregation, political power and representation, and other foundations of local society. They will be introduced to the latest books and articles on these topics. Course Fee: GL01 \$90.

### **GRG 5223. Behavioral Geography. (3-0) 3 Credit Hours.**

This course investigates human spatial behaviors as a function of the social, built, and natural environments. These behaviors include the formation of beliefs and attitudes toward places and people; how humans lay claim to and defend proximal spaces and territories; perception of the physical environment; the diffusion of technologies, ideas, people, and diseases over space; and the causes and effects of contemporary human migrations. Students will directly observe human personal space defense in the field, and present their observations in a semester paper and presentation to the class. Course fees: GL01 \$90.

### **GRG 5233. Geographies of Gentrifications. (3-0) 3 Credit Hours.**

The material expression of the 'American Dream' is in a dramatic state of change: a single-family detached house in a park-like setting has come under substantial scrutiny since the end of the 20th century. Often called the middle-class re-urbanization of the inner city, "gentrification" is seen by many to be a response to the multiple critiques of 'suburbia' in terms of uniformity, sterility, alienation and racism; giving rise to what many believe is an alternative model of city living. But gentrification itself has evolved rapidly in concert with outstanding social ills that it has failed to address, and the globalizing capitalist world economy has imposed new actors with differing agendas in the inner city. This course examines the rise and evolution of gentrification and the array of social implications of class-conscious urban renewal. Course Fee: GL01 \$90.

### **GRG 5253. Applied Climatology in the Urban Environment. (3-0) 3 Credit Hours.**

This course explores the various mechanisms through which cities influence climate across local, regional and global scales. The class introduces the individual aspects of the urban climate system as well as the observational and modeling strategies used to study it. Many of the sustainability challenges facing urban environments will be discussed, including the urban heat island effect, urban flooding, air quality issues, and climate justice. Course Fee: GL01 \$90.

### **GRG 5323. Seminar in Urban Geography. (3-0) 3 Credit Hours.**

An investigation of urbanity and urbanization to provide an understanding of the physical, historical, social, political, cultural, and economic forces that shape cities and public spaces in the context of globalization. The course begins with the origin and evolution of urban geography as a discipline. It proceeds to address three principal themes: social and environmental (in) justice, comparative urbanism, and 'sense of place' from international perspectives. Other topics may include social area analysis, residential segregation, migration, urban transportation, the urban economic base, and consumer shopping behavior in cities. Course Fee: GL01 \$90.

### **GRG 5353. Seminar in Historical Geography. (3-0) 3 Credit Hours.**

Graduate level study of historical landscapes, the role of the environment, boundaries, settlement origins and patterns, origins of agriculture and industry, and the history of geography. Regional focus includes Latin America, Anglo-America, and Texas. Regional emphasis and sub-regional coverage may vary. Course Fee: GL01 \$90.

### **GRG 5403. Seminar in Biogeography. (3-0) 3 Credit Hours.**

Biogeography is the study of the distributions of biological diversity and the reasons for these spatial patterns. This course will evaluate species diversity and abundance at present and in the past, and why these variables change over time. Foundations in ecology will be provided as needed for the understanding of spatial patterning of species. The role of biogeography under increasing human impacts and in consideration of global climate change will also be explored. Course Fee: GL01 \$90.

### **GRG 5413. Climatology. (3-0) 3 Credit Hours.**

In-depth treatment of the elements and causes and consequences of climate and weather on a global scale. The course includes the components of climate, climatic classifications, and the interpretation of patterns and formative processes of temperature, air pressure, winds, air masses, precipitation, and storms, including attention to regional weather patterns, tornadoes and hurricanes. Emphasis is on human impacts stemming from and influencing climatic phenomena. Course Fee: GL01 \$90; STLF \$18.48.

### **GRG 5423. Physiography and Landscape Appreciation. (3-0) 3 Credit Hours.**

An advanced study of landforms, including the analysis of relief features at the surface of the earth, and the processes and materials that form them and change them over time. Students will be given the opportunity to examine the impacts of human intervention in landscape-shaping processes. Emphasis is placed on sustaining and conserving the physical landscape by understanding how different forces and landscape systems overlap, interact and evolve. Course Fee: GL01 \$90.

### **GRG 5433. Environmental Landscape Management. (3-0) 3 Credit Hours.**

An assessment of management practices and policies in a variety of landscapes. In-depth evaluations of ecosystem services and land use needs, and management practices that are used to address various land use goals. Emphasis will be placed on the role of spatial scale in management and in sustainable management practices. Course Fee: GL01 \$90.

**GRG 5443. Seminar in Critical GIS. (3-0) 3 Credit Hours.**

This course explores the concepts, techniques and histories in Geographic Information Systems (GIS) that enable mapping as a creative and artistic practice, with particular attention to critical and qualitative interventions into the GISciences. We examine the innovative applications of maps and spatial visualization in everyday life, emphasizing the changing role of the map-makers as society becomes increasingly saturated by digital information technologies. Students will be introduced to the more recent innovative application of GIS and mapping in representing social groups and community building through feminist, participatory, and voluntary mapping practices. Course Fee: GL01 \$90.

**GRG 5513. Geography and Culture. (3-0) 3 Credit Hours.**

An exploration of the nature and distribution of cultural landscapes and human behavior within these landscapes. Taking a global focus, the course examines the spatial diffusion of culture, regional differences in religion, language and ethnicity, environmental perception and behavior, intercultural communication, and environmental determinism and possibilism, among other topics. Course Fee: GL01 \$90.

**GRG 5543. The Feminist City: Geographic Approaches to Inclusive Cities. (3-0) 3 Credit Hours.**

This course provides an introduction to the sub-discipline of feminist geography. It explores the distinctive contribution that geographers have made to the analysis of feminist theories, and how space is socially produced and consequently, is gendered. A wide range of interdisciplinary literatures enable an understanding of how women and men experience cities differently in relation to transportation choices, housing preferences, employment opportunities, and feelings toward urban public spaces. The class goes beyond the Anglo-American discourses to consider case studies in non-Western contexts. Course Fee: GL01 \$90.

**GRG 5553. Global Urban Sustainability. (3-0) 3 Credit Hours.**

Cities, as engines of financial and human capital accumulation, have often been seen as environmental sacrifice zones. Current processes of rapid urbanization throughout the globe emphasize quantitative material increase rather than qualitative growth and improvement. This course is an intensive seminar for graduate students in geography, urban planning, architecture, urban public policy, environmental sciences, and other fields interested in exploring the potential for sustainable urbanism. A wide range of sustainable programs and practices from around the world will be presented and discussed. Course Fee: GL01 \$90.

**GRG 5563. Applied Sustainability. (3-0) 3 Credit Hours.**

This course focuses on current trends in the developing field of sustainability practice. Students will examine case studies of environmentally and socially sustainable, and economically resilient, societies. Topics for case study may include land use planning/development, energy systems, infrastructure, waste management, food systems, building construction, biodiversity, and economics as related to sustainability. This class is appropriate for individuals seeking to become professionals who can help guide their organizations toward a sustainable future in strategic, realistic, and competitive ways. Course Fee: GL01 \$90; STLF \$18.48.

**GRG 5573. Socially Sustainable Public Places. (3-0) 3 Credit Hours.**

Socially Sustainable Public Spaces adopts an interdisciplinary lens to explore the creation of socially sustainable urban public spaces around the globe. We will begin by questioning if the concern for the social sustainability of cities is a new emerging topic. We will experience public spaces firsthand – potential sites include San Antonio, San Marcos, and Austin. Relying on our own experiences and the theoretical framework learned in this class, we will explore, examine, and evaluate the fundamental elements that bring public places to life and equip people to fuel lasting change.

**GRG 5583. Designing Inclusive Cities. (3-0) 3 Credit Hours.**

Cities have always been places of spatial inequalities, from Susa, one of the oldest world cities in modern Iran, to the Greek city-state of Athens, the so-called birthplace of democracy. More recently, the 2020 Pandemic has shed light on the uneven distribution of urban goods and bads. In this course, we will explore how urban designs and policies, and socio-environmental injustices are closely interconnected. We will co-learn about the main drivers and indicators of urban inequality and segregation relying on examples of cities from Tokyo to Tehran and from San Antonio to Seoul. Course Fee: GL01 \$90.

**GRG 5603. Geopolitics. (3-0) 3 Credit Hours.**

Investigates the links between political power and geographic space, and the effects of geography (both human and physical) on international politics and international relations. Covers the ideas of Ratzel, Mahan, Mackinder, Spykman, Huntington, and others, in the German, French and Russian schools. Examines the role of geopolitics in current global political standoffs and conflicts. Same as GLA 5603 and POL 5603. Credit can only be earned for one course: GRG 5603, GLA 5603, or POL 5603. Course Fee: GL01 \$90.

**GRG 5653. Designing Better Maps: Seminar in GIS Cartography. (3-0) 3 Credit Hours.**

Maps, printed or digital, have become a popular and (in) effective way of communication in our digital world. In this course, students learn to create and design high-quality digital maps, using Geographic Information System (GIS). The course examines the fundamental concepts and techniques of digital mapmaking and the broader field of geographic visualization. Students will practice Geodesy, statistical mapping and graphing, as well as developing basic graphic design skills. Topics will include a variety of aesthetics and geospatial themes from how generalization, symbology, and color affect maps to how coordinate systems, transformations, and projections affect the messages behind the maps. Course Fee: GL01 \$90.

**GRG 5753. The Geography of Development and Underdevelopment. (3-0) 3 Credit Hours.**

Advanced analysis of economic growth and social change in developing nations and regions. Investigates issues such as defining of development, major theories of development and underdevelopment, global inequalities, population growth and migration, and the role of agriculture, industry, transportation, and government and trans-governmental planning in development. Same as GLA 5753. Credit cannot be earned for both GRG 5753 and GLA 5753. Course Fee: GL01 \$90.

**GRG 5903. Seminar in Political Geography. (3-0) 3 Credit Hours.**

Investigates the role of the political state in society and the evolution of state organization from classical times to the present. Topics may include centrifugal and centripetal forces, geopolitics, territorial morphology, boundaries, core areas, and emerging supranationalism. (Same as POL 5903. Credit cannot be earned for both GRG 5903 and POL 5903.) Course Fee: GL01 \$90.

**GRG 5913. Design and Management of Geographic Information Systems. (3-0) 3 Credit Hours.**

Prerequisite: GES 3314 or permission from the instructor. A course for graduate students wishing to gain expertise in advanced topics and applications in GIS and related environmental informatics, as applied in the Geosciences and Social Sciences. The course covers advanced ArcGIS functions; advanced GIS applications; and student GIS projects. Students are encouraged and guided in developing research projects related to their MA thesis and/or professional goals. They will learn how to download both spatial and non-spatial data from available sources and how to use such data in their research. (Same as POL 5913. Credit cannot be earned for both GRG 5913 and POL 5913.) Course Fee: GL01 \$90; STLF \$18.48; DL01 \$75.

**GRG 6893. Research Proposal. (3-0) 3 Credit Hours.**

Prerequisite: Permission from the Thesis Advisor or Faculty Subfield Advisor, course instructor, and Graduate Advisor of Record. An examination of the research questions and the theoretical and methodological assumptions that characterize different subfields in Geography. As part of this course, the student will develop, prepare and defend a proposal for the Master's thesis. May be repeated for up to 6 credits. Credit will be awarded upon approval of the proposal by the student's course instructor and thesis advisor. A thesis committee must be formed by the end of the course. This course will be taken in the student's third long semester in the program. Failure to meet this requirement within four long semesters from the time when the student enters the graduate program will preclude continuation of the student in the Master's program. Same as POL 6893 and GLA 6893. Students must complete this course before enrolling in GRG 6983. (Formerly titled "Master's Thesis Proposal."). Course Fee: GL01 \$90; STLF \$18.48.

**GRG 6951. Independent Study. (0-0) 1 Credit Hour.**

Prerequisites: Graduate standing and permission in writing (form available) from the instructor and the student's Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not usually available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree. Course Fee: GL01 \$30.

**GRG 6952. Independent Study. (0-0) 2 Credit Hours.**

Prerequisites: Graduate standing and permission in writing (form available) from the instructor and the student's Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not usually available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree. Course Fee: GL01 \$60; STLF \$12.32.

**GRG 6953. Independent Study. (0-0) 3 Credit Hours.**

Prerequisites: Graduate standing and permission in writing (form available) from the instructor and the student's Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not usually available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master's degree. Course Fee: GL01 \$90.

**GRG 6961. Comprehensive Examination. (0-0) 1 Credit Hour.**

Prerequisites: Approval of the Faculty Subfield Advisor, Graduate Advisor of Record, and the student's Comprehensive Examination Committee. Students will select fields of study and prepare for examination under faculty supervision. Students will designate an exam committee and exam chair in the semester prior to enrollment. Enrollment is required each term in which the Comprehensive Examination is taken if no other courses are being taken that term. May be repeated once during a different semester. Credit earned in GRG 6961 may not be counted toward the Master's degree. The grade report for the course is either "CR" (satisfactory performance on the Comprehensive Examination) or "NC" (unsatisfactory performance on the Comprehensive Examination). Course Fee: GL01 \$30.

**GRG 6963. Internship. (0-0) 3 Credit Hours.**

Practical experience in a workplace setting in which classroom knowledge of geographic skills and concepts can be deepened and applied. May be repeated for credit to a maximum of 6 hours. Course Fee: GL01 \$90.

**GRG 6966. Internship. (0-0) 6 Credit Hours.**

Practical experience in a workplace setting in which classroom knowledge of geographic skills and concepts can be deepened and applied. May be repeated for credit to a maximum of 6 hours. Course Fee: GL01 \$180; STLF \$36.96.

**GRG 6973. Special Problems. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not usually available as part of the regular course offerings. Special Problems courses may be repeated for credit when topics vary, but not more than 6 hours, regardless of discipline, will apply to the Master's degree. Course Fee: GL01 \$90.

**GRG 6981. Master's Thesis. (0-0) 1 Credit Hour.**

Prerequisites: GRG 6893 or permission of the Graduate Advisor of Record and Thesis Chair. Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress. Course Fee: GL01 \$90; STLF \$18.48.

**GRG 6983. Master's Thesis. (0-0) 3 Credit Hours.**

Prerequisites: GRG 6893 and permission of Graduate Advisor of Record and Thesis Committee. Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to the Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress. Course Fee: GL01 \$90.