SCHOOL OF GEOGRAPHY AND DEVELOPMENT
SPRING 2015 COURSES

EVS 260 - Environmental Studies: Ideas and Institutions
This class analyses the key ideas, individuals, and institutions that have shaped environmental studies and policies in the US and globally. The course provides an introduction to environmental writings that have shaped attitudes to the environment, an overview of the most important US and international institutions that have been established to manage the environment, and the exploration of critical and iconic environmental cases and problems. The course is intended to provide the social science foundations and basic environmental literacy for the degree in environmental studies.

EVS 498 - Capstone, Environmental Studies
A culminating experience for majors involving a substantive project that demonstrates a synthesis of learning accumulated in the major, including broadly comprehensive knowledge of the discipline and its methodologies. Senior Standing required.

GEOG 150B1 - Human Geography and Global Systems
Social Interactions and Relationships - This course introduces students to fundamental issues and concepts pertinent to the study of individuals and societies. In focusing on models and explanations of how things are interrelated in earth space. Students are given a clearer understanding of the economic, social, and political systems with which individuals live and operate. (TIER ONE)

GEOG 150C1 - Environment and Society
Societal & Institutional Systems - This course introduces students to the study of relationships between people and the environment from a social science perspective, and provides a context for thinking about the social causes and consequences of environmental changes in different parts of the world. It focuses on how and why the human use of the environment has varied over time and space; analyzes different approaches to decision-making about environment issues and examines the relative roles of population growth, energy consumption, technology, culture and institutions in causing and resolving contemporary environmental problems around the world. (TIER ONE)

GEOG 170A1 - Earth's Environment: Introduction to Physical Geography
The Earth and Its Environments - Introduction to fundamental laws of nature as expressed physical processes that govern the spatial distribution of Earth's land, sea, air, and biological environments. Focus on fluxes and feedbacks among these systems, and interactions with humans. (TIER ONE)

GEOG 200 - Introduction to Statistics for the Social Sciences
An introductory course in the fundamentals of modern statistics with applications and examples in the social and behavioral sciences. Topics include: methods for describing and summarizing data, probability, random sampling, estimating population parameters, significance tests, contingency tables, simple linear regression, and correlation.
GEOG 210 - Political & Cultural
This course examines how systems of difference provide revealing analytical categories for understanding the political and cultural geography of globalization and develops critical thinking skills that can be used effectively beyond this course.

GEOG 220 - Our Diverse Biosphere
The goals of this course are to (1) immerse non-science majors in the biological aspects of Physical Geography and, through lively discussion, maps, and images, (2) enhance the critical thinking skills that students need to make decisions about the world around them.

GEOG 222 - Working with Numeric, Spatial, and Visual Data: Fundamental Geographic
This class is designed to furnish students with a basic set of skills in recognizing, locating, processing and analyzing geographic data. These skills provide a foundation for upper-level classes in statistical methods, Geographic Information Systems, urban and regional development. These skills also provide a basic professional preparation for employment market requirements including defining research questions, selecting suitable geographic tools and methods to investigate, harvesting and analyzing data, and in presenting findings using computer mapping, spreadsheet, and charting software.

GEOG 251 - World Regions: Comparative and Global Perspectives
This course is a survey and comparison of major world regions with a focus on how global processes, regional interconnections, and local geographic conditions create distinctive regions and landscapes. (TIER TWO)

GEOG 270 Sports Geography
Sports are a central part of landscapes and everyday lives around the world. They reflect and shape individual and national identities, historical and contemporary global political economies, and the places in which we live. This class explores these connections, places, and landscapes through the lenses of geography. Topics include the siting of stadiums and urban development; geographies of identity and nationalism; traditional/indigenous sports; transnational sports and migration; the political economy of megaevents such as the Olympics and World Cup; spaces of race/ethnicity and gender/sexuality; and the landscapes of outdoors sports. (TIER TWO)

GEOG 302 - Introduction to Sustainable Development
More than half of us live in cities but how can we make them more livable from a social equity, economic and environmental standpoint? This course explores this set of challenges by examining where and how to place and develop new commercial and residential buildings, the protection and addition of green spaces for recreation, urban ecology, what role renewable energy can play, green building design and functions, the advantages of urban agriculture, how to cool cities down, water resource management for arid cities and transportation options for expanding urban areas and diverse populations. (RD CORE)

GEOG 303 - Field Study in Environmental Geography
Study the outdoors! During this course you get to enjoy working in the field (UA campus) and go on a field trip to the Catalina Mountains for instance. This course is designed to introduce you to various methods of conducting and reporting fieldwork, including mapping, collecting and
analyzing some environmental data. Get to know your biophysical environment using hands-on tools!

GEOG 304 - Water, Environment, and Society
This course explores human and natural systems and their dependence on freshwater at multiple scales. Topics of interest include global change, ecosystem services, groundwater, urbanization, land use, watershed and river basin management, stakeholder processes, and water policy.

GEOG 305 - Economic Geography
This course covers analysis and modeling of the spatial structure of primary, secondary, and tertiary economic activities; location theory and regionalization in economic systems. (RD CORE)

GEOG 311D - Geography of Africa
This course provides an overview of the diverse regions, geographies and peoples of Africa, with emphasis on tropical environmental systems and changing patterns of resource utilization and development.

GEOG 340 - Cultural Geography (honors)
This course will approach the field of cultural geography examining theoretical foundations and practical applications. It will also focus on the interactive relationships between culture and places, spaces, regions, and landscapes.

GEOG 357 - Geographical Research Methods
This course addresses the formulation and solution of geographic problems; models, research design, and methods of gathering, analyzing, and portraying geographic data.

GEOG 362 - Environment and Development
This course evaluates theories and practices aimed at addressing the complex relationship between economic development and environmental protection in both industrialized and developing world contexts.

GEOG 367 - Population Geography
This course is about fertility, mortality, and migration as agents of demographic change. Topics include fertility control and LDCs; working mothers and NDCs; aging societies; legal/illicit immigration in the U.S., population policies. (RD CORE)

GEOG 370 - Geography of International Development
This course concerns the historical evolution of development theory and current debates in geography of international development. Planned micro to macro-level change over space and time examined related to employment, agriculture, food security, environment, migration and the household.

GEOG 371 - Principles and Practices of Regional Development
This course included an introduction to basic concepts, history, objectives, theories and strategies of regional and local economic development professionals. Guest speakers from the community are featured. (RD CORE)

GEOG 373 - Political Geography
This course explores links between global economic and political processes, national affairs and local politics. Designed to foster participation; assessment is via essays and assignments.

GEOG 374 - Geography and Social Justice
This course provides an introduction to theories of social justice with application to social, cultural, and economic geography. What are the prevailing theories of social justice and how can we draw on them to assess movements and goals for social change? How do different geographical contexts inform our assessment of social justice concepts? Course will address theory, moral questions, and specific case studies equally.

GEOG 379 - Urban Growth and Development
Location patterns in urban areas and processes of growth; historical development of U.S. cities, rent theory, housing markets, commercial and industrial location, the role of transportation, urban finance, New Urbanist planning and sustainable development concepts. (RD CORE)

GEOG 416A - Computer Cartography
This course introduces the principles of map design, production and analysis.

GEOG 416C - Urban Geographic Information Systems
Introduces concepts and application skills for use of geographic information systems to investigate a range of urban spatial issues and decision-making processes. Emphasis on complete process of GIS-based problem solving, including project planning, spatial data sources/acquisition, preparation/coding, analysis, representation, and communication.

GEOG 417 - Geographic Information Systems for Natural and Social Sciences
This course introduction to the application of GIS and related technologies for both the natural and social sciences. Conceptual issues in GIS database design and development, analysis, and display.

GEOG 420 - Advanced Geographic Information Systems
This course examines various areas of advanced GIS applications such as dynamic segmentation, surface modeling, spatial statistics, and network modeling. The use of high performance workstations will be emphasized.

GEOG 430 - The Climate System
This course is a systematic examination of processes and circulations comprising Earth's climate. The emphasis is on developing an understanding of the basics of the climate system; the earth-sun relationships that drive climate, and the global energy and water balances. Students will learn about the natural processes that control the climate system and how they interact, and how these interactions translate to climate on the ground in different regions.
GEOG 446 - Health and the Global Economy
This course deals with the interconnection of the global economy, local social structures, and health, as well as examining disease and spatial aspects of health care, including access to care.

GEOG 454 – Regional Analysis
This course provides the theory, techniques and hands-on experience necessary to understand some of the most important questions in urban and real estate economics, namely the spatial distribution of housing prices, the factors driving firms and city dwellers location decisions and the economic cost of congestion. The series of exercises students will work through will help them get familiar with the techniques and a free software (Geoda) commonly used by practitioners in this field. The interdisciplinary nature of the material taught in class is relevant to students majoring in various disciplines such as economics, business, geography, regional development, urban planning and civil engineering.

GEOG 458 - Geography of Transportation
The course presents an overview of the geography of transportation and the relation between transportation and spatial organization. Approaches of description and normative analysis are integrated for understanding the geography of transport.

GEOG 468 - Water and Sustainability
‘Sustainability’ is a popular buzzword when we talk about the environment. Yet it is both a complex concept and a challenging goal. What does sustainability mean in the context of water? As economies in the global south develop, how will their increasing water needs be met? How will climate change affect water supply in different global regions? Could future wars be fought over water or will the future be one of cooperation? In this class, through readings, films, journals, writing, and discussion, we will examine the myriad ways in which water and society interact, seeking to understand major water issues and proposed solutions in particular regions and across the global landscape. The course will help students analyze real-world water challenges, understand theoretical approaches to and critiques of sustainability, and develop their critical thinking and writing skills.

GEOG 469 - Water Resource Assessment (formerly 467)
This course focuses on watersheds, aquifers, and river basins as sources of water to meet human and environmental demands. Techniques covered include watershed delineation, water budget calculation, safe yield estimation, water quality assessment (total maximum daily load). MODSIM, MODFLOW, and WEAP decision support systems are reviewed.

GEOG 471 – Problems in Regional Development
Topical issues in regional development, with emphasis on policy in diverse contexts and case study analysis.

GEOG 483 - Remote Sensing Land Use and Land Cover
Local to global scale land use and land cover are examined using multi spatial and temporal scale remote sensing data. This course will be a mix of lectures and hands-on labs and assignments to access, preprocess, classify and analyze our dynamic world using multispectral and LiDAR airborne and satellite data at weekly, monthly, yearly and decadal time steps. We will focus on
problems related to land use and planning, resource management, climate and wildfire impacts and other topics.

GEOG 497F - Community and School Garden Workshop
This workshop-based course is designed to enable UA undergraduates and graduates students to work in Tucson-area schools helping students and teachers to undertake the design, construction, planting, harvesting and preparation of foods from a local school garden. The workshop also involves preparing or assembling curriculum materials to enable teachers and students to teach and learn about food production, food histories and geographies, and food politics. The course includes an intensive workshop sponsored by the Tucson Community Food Bank. In addition to attending that workshop, students are also expected to attend at least one fieldtrip among the two that are organized during the semester as well as attend monthly meetings of the group on the UA campus. Most of the workshop, however, revolves around consistent and engaged involvement with a Tucson school and its teachers and students supporting the development and maintenance of school garden and attendant curriculum.

OTHER COURSES

GEOG 395A - Current Topics in Geography
Exchange of scholarly information and/or primary research through the Department's regularly scheduled Colloquium Series. Student responsibilities include critical reviews of presentations by local and visiting faculty. This course gives students a broad survey of the latest research within the subdisciplines in Geography. One Credit – Meets Fridays 3:30-4:45pm, most weeks.

Preceptorships, Independent Studies, and Internships (one to six credits)
See also cross-listed courses that are housed in other departments.