School of Geography and Development
Fall 2015 Courses

GEOG 150B1 Human Geography and Global Systems
The human world has never been more interconnected, so now, more than ever, location matters! This course will show you how global population growth and migration, economic globalization and development, and urbanization trends will impact both your life and the lives of the 7 billion people already on our planet-- not to mention the ca. 3 billion additional people who are expected to inhabit our ecosphere during your lifetime! (TIER ONE)

GEOG 150C1 Environment and Society
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 Environment: Introduction to Physical Geography
Earth’s physical geography derives from dynamic interactions among its four main parts: the atmosphere (air), hydrosphere (water), biosphere (life), and landforms (rocks and soils). We focus in this introductory course on how and why Earth’s physical geography varies over space and time. It is a guided tour of our amazing home! (TIER ONE)

GEOG 205 Places in the Media
This course is an introduction to media and geography. Students will develop critical frames for evaluating how places are represented in media such as television, film, music videos, blogs, and advertisements. (TIER TWO)

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 222 Working with Numeric, Spatial, and Visual Data: Fundamental Geographic Techniques
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 230 Our Changing Climate
Where, when, and why is climate changing? We will answer these questions via computer visualization and hands-on exploration of satellite images, time-series, and other climate variability data at global, regional, and local scales, and from paleoclimate to modern instrumental record. (TIER TWO)

GEOG 240 Our Dynamic Landscape
This course addressed critical perspectives on complex environmental problems. Issues include environmental hazards, renewable and nonrenewable resources. Global, regional, and local patterns, and geographic scale are emphasized. (TIER TWO)

GEOG 250 Environment and Society in the Southwest Borderlands
This course explores the broader trends shaping the US Southwest and Borderlands, with particular emphasis on the region's human-environment tradition. It exposes students to a variety of methods for understanding how humans have organized in the Southwest to gain access to resources critical for their survival, both in the past and in the present context. Coursework focuses on the social, cultural, and political dimensions of human-environmental transformation. (TIER TWO)

GEOG 251 World Regions
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)

EVS 260 Environmental Studies: Ideas and Institutions
Which ideas, individuals, and institutions have shaped environmental studies and policies in the US and globally? The course provides an introduction to environmental leaders and writings that have shaped attitudes to the environment, an overview of the most important US and international organizations, agencies and laws that have been established to manage the environment, and the exploration of some pivotal environmental cases, debates and problems. The course is intended to provide the foundations and environmental literacy for students interested in environment and society and is a core course for the degree in environmental studies.

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
During this course, you will work out of doors (UA campus, with a field trip to the Catalina Mountain) to learn about conducting environmental research. This course is designed to
introduce you to various field methods used in environmental geography. You will learn mapping techniques, use of global positioning systems, weather data collection, land cover data collection, and basic analysis methods for environmental data sets. Get to know your biophysical environment using hands-on tools!

GEOG304 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
What is the difference between economics and economic geography? And why does it matter? You will find out, and a lot more besides, using works of original thinkers such as Von Thuenen, Adam Smith, David Ricardo and Karl Marx. We apply their insights to questions of location and development, as well as trends such as offshoring and outsourcing, internet adult industry, language learning, industrial restructuring in the US and the former Soviet bloc, and much more. (RD CORE)

GEOG 311A Geography of Mexico
This course provides an overview of the diverse regions, geographies and peoples of Mexico, with particular attention to contemporary processes shaping the socioeconomic, political, environmental and cultural landscape today.

GEOG 330 Introduction to Remote Sensing
Remote sensing is a revolutionary technology that ‘images’ the whole Earth and empowers students to apply this new scale of knowledge to applications in the physical and social sciences. Lectures and computer labs train students to produce job-relevant aerial photographic and satellite image analyses that address real-world problems.

GEOG 357 Geographic Research Methods
Formulation and solution of geographic problems; models, research design, and methods of gathering, analyzing, and portraying geographic data.

GEOG 367 Population Geography
Fertility, mortality, and migration as agents of demographic change. Topics include fertility control and LDCs; working mothers and NDCs; aging societies; legal/illegal immigration in the U.S., population policies. (RD CORE) (TIER TWO)

GEOG 368 Green Economy
The Green Economy. What is it and how does it function? What does it mean for our future? What are the implications for cities, community, and globalization? What kind of policies lay the foundation for green economic development, and what challenges and opportunities lie within? And what does 'green' mean anyway? This course is a challenging exploration into the day-to-day practices and policies of the green economy, particularly in the United States and the Southwest. The class will be devoted to understanding how the green economy functions and why, through readings, lectures, visiting speakers, and field studies.
GEOG 371 Principles and Practices of Regional Development
(counts towards Urban and Regional Development "Core Courses" requirement)
Meet some of the players who make a difference in how a city builds its economic vibrancy. With Tucson as an example, you'll hear some of the significant and insignificant concerns of those striving to build a stronger, more equitable, more sustainable and dynamic city.

GEOG 373 Political Geography
All politics are embedded in geographical space. The course is designed to explore how we shape, define, and regulate the world through political processes, and in turn, to question how geography and geographical knowledge continue to mediate politics. The course is an intensive survey of political geography, covering the major topics and debates in the discipline. Important themes include nationalism, territory, borders and mobility, conflict and militarism, geopolitics, globalization, human security and intervention. Through exploring these concepts, the course critically examines the history of geopolitics and other political geographical ideas and perspectives. Contemporary developments in the world’s regions will be selectively drawn upon to illustrate concepts from the course texts and lectures.

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 407 The American Landscape
This course is an exploration of general theories of landscape and their expression in everyday life. Our primary objective is to understand landscape as sets of practices, ideas, and as a material manifestation of the ways humans interact, both with each other and with the complex world of non-human objects, creatures, and organisms. We will look carefully at how consciousness and being—existence—shape and are shaped by landscape.

GEOG 416E Geovisualization (GIS)
Geovisualization encompasses a range of geospatial and geovisual methods that can be used to elicit and analyze input from stakeholder valuations on built and natural environments and enable better communication with a diverse range of stakeholders. The class addresses questions such as: What is Geoviz? Who does it? How? And why? How can GV and participatory geographic information science address social, environmental problems in ways that benefit a broad range of stakeholders? This class explores geovisualization using ArcGIS, ArcScene, 3D Analyst, SketchUp and GoogleDoc software in conjunction with a range of the latest peer-review literature and project work available online.

GEOG 416F GIS for the Social Sciences
An advanced course for students who want to integrate social science data and geographic information science into their research or work life. The course is presented in a lecture/laboratory format. The lecture portion will deal with conceptual issues necessary for the integration of social science data and approaches within a GIS framework. The laboratory portion will provide practical experience with GIS software products used for the development and analysis of spatially-referenced social science data sets.
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 438 Biogeography
Biogeography explores past and present distributions of life and its interactions with Earth. In this course we move from Pangea to the Anthropocene, and combine evolutionary and ecological perspectives to show how Earth history and contemporary environments have shaped species distributions and nearly all patterns of biodiversity. Shortly, the interplay between biota and our changing environment through time and space will be pursued and how it relates to species migration, conservation, extinction and climate change. During this course you get to explore and analyze some data and discuss your view of all life on Earth.

GEOG 444 Entrepreneurial Innovation for Sustainable International Development
This course examines development-driven social entrepreneurship strategies through which individuals and small groups can have an innovative, scalable impact on sustainable development in the impoverished world (e.g., Sub-Saharan Africa). Students will address two non-traditional development questions: what is the impact of innovative, development-driven entrepreneurship and how can I collaborate with my peers in the developing world to utilize technology and markets for the betterment of impoverished societies?

GEOG 456 The American City
In this course, an integrated approach to the built environment is taken, with special emphasis on the historical, social, and political aspects of American urban development.

GEOG 457 Statistical Techniques in Geography, Regional Development and Planning
Methods of gathering and analyzing data for the solution of geographical, urban, and regional planning problems, with emphasis on quantitative and statistical techniques used in spatial analysis and cartography, on the one hand, and program planning, on the other.

GEOG 490 Remote Sensing for the Study of Planet Earth
Remote Sensing for the Study of Planet Earth introduces basic and applied remote sensing science as a means to explore the diversity of our planetary environments (biosphere, atmosphere, lithosphere and hydrosphere) within the radiometric, spectral, spatial, angular and temporal domains of remote sensing systems. This survey course strikes a balance between theory, applications and hands-on labs and assignments. We explore how you can download, process, analyze and interpret multi-sensor data and integrate online remotely sensed data sources/products into your research of interest.

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 and community gardens helping students and teachers as well as community members to undertake the design, construction, planting, harvesting and preparation of foods from a 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. An intensive garden workshop sponsored by the Tucson Community Food Bank starts the semester.