



# Department of Geography

## Fall 2009 Courses

**Registration begins May 4, 2009**

<u>COURSE NO.</u>	<u>COURSE NAME</u>
GEOG 101	<b>People and Their Environment</b> - A survey of Earth's environment (air, land, water); how it varies spatially, and how people interact with it. 3 hours 3 credits. GER 3/B. 3 hours 3 credits. Four day, one evening, and one Saturday section.
GEOG 150	<b>World Regional Geography</b> – A survey of the world's major regions and their physical, economic, social and political conditions and problems. GER 2/B, PD/A or D. 3 hours 3 credits. One day and one evening section.
GEOG 221	<b>Economic Geography</b> – Geographic factors influencing economic activity; spatial organization of society; location theories; locational and commodity flow; analysis; regional economic development. GER 3/B. 3 hours 3 credits
GEOG 272	<b>Geography of Europe</b> – Analysis of the relationship of natural environment to economic, social, and political life of Europe (excluding Russia). GER 3/B. 3 credits 3 hours.
GEOG 275	<b>Geography of Sub-Saharan Africa</b> – Analysis of the relationship of natural environment to economic, social, and political life of Africa south of the Sahara. GER 3/B, PD/A. 3 hours 3 credits.
GEOG 278	<b>Geography of Russia and Central Asia</b> – Analysis of the relationship of the natural environment to the economic, social, and political life of Russia, the former Soviet republics of central Asia, and Mongolia. GER 3/B. 3 credits 3 hours.
GEOG 334 and GEOG 705.63	<b>Political Geography</b> – Impact of the environment on centrifugal and centripetal forces involved in the well-being of states; national-states; low of the seas. GER 3/B. 3 hours 3 credits.
GEOG 335 and GEOG 711.75	<b>International Pollution Issues</b> – A study of international trans-boundary pollution and the science, source terms, transport pathways and international impacts of contamination events. The regional focus will change yearly pending current global environmental issues. GER 3/B. 3 hours 3 credits.
GEOG 341 and GEOG 743	<b>Urban Geography</b> – Spatial analysis of functions of metropolitan areas; social and economic characteristics of cities and suburbs; land use and transportation patterns. GER 3/B. 3 hours 3 credits.
GEOG 342 and GEOG 742	<b>Geography of International Migration and Ethnicity</b> – <i>Online Courses</i> – Quantitative and qualitative examination of historic and contemporary international migration patterns. Spatial demographic impacts of immigration policy in the U.S. with a focus on major urban centers. Comparative analysis of ethnic and racial minorities in the U.S. PD/B. 3 hours 3 credits.
GEOG 357 and GEOG 709.57	<b>Geography of New York City &amp; Vicinity</b> – Analysis of the relationship of the natural environment to the economic and settlement patterns of the NY metropolitan region over time, with emphasis on NY City. Field trips required. GET 3/B. 3 hours 3 credits.
GEOG 380	<b>Seminar in Geographic Concepts and Methodology</b> – Investigations of evolution, conceptual framework and methodological approaches of modern geography. GER 3/B. 3 hours 3 credits.
GEOG 383.08 and GEOG 703.08  <b><u>SPECIAL TOPIC!</u></b>	<b>Special Topic: Culture and Nature</b> - An introduction to a variety of contemporary perspectives on the environment from across the globe, including North America, South America, Asia, and Europe. Focus shifts onto the dominant Western perspective on nature, to trace its history and to challenge students to look deeply and critically into its practical implications for humans, animals, and the environment. The science fiction novel <i>Oryx and Crake</i> by Margaret Atwood will provide an imaginative, narrative space in which to examine visions of nature in the future, as well as to analyze current dominant assumptions about human uses of nature expressed in Western society. The course concludes with an exploration of the possible convergence of global worldviews on the environment. There is a strong emphasis on written work in this course. GER 3/B. 3 hours 3 credits
GEOG 383.07 and GEOG 703.92  <b><u>SPECIAL TOPIC!</u></b>	<b>Special Topic: Environmental and Sustainability Education</b> - The course explores concepts and practices in environmental and sustainability education, in broad senses of both terms. With emphasis on learning through direct experience, students will engage in naturalist practices which extend beyond the classroom, and will exercise personal reflection upon their learning experiences. The course takes a critical approach to recognize and negotiate the challenges of teaching environmental and sustainability education within formal education systems. The course also examines diverse informal ways in which people learn about, and relate to, the natural environment, ranging from place-based, indigenous knowledge and storytelling to global technologies and popular culture. GER 3/B. 3 hours 3 credits.
GEOG 701	<b>Geographic Thought and Theory</b> – Identification of research trends; major schools of thought; scientific methods and exceptionalism; reviews of current research. 45 hours including conference. 3 credits.
GEOG 701.54	<b>Research Design in Geography</b> - Identification of research trends; major schools of thought; scientific method and exceptionalism; reviews of current research. 45 hours including conference. 3 credits.

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<u>Course No.</u>	<u>Course Name</u>
GEOG 702	<b>Research Topics in Geography</b> – Introduction to central research themes in geography and the current research being undertaken by department faculty. 15 hours including conference. 1 credit.
<b>GEOL 101 LAB SCIENCE</b>	<b>Fundamentals of Geology</b> – Theory of plate tectonics; volcanism; earthquakes; continental drift; mountain-building; mineral deposits; fossils; agents of erosion; hazards. GER 2/E. 6 hours (3 lecture 3 lab) 4.5 credits. Ten day and four evening sections. <b>THIS IS A LABORATORY SCIENCE.</b>
GEOL 180	<b>Introduction of Oceanography</b> – Properties of sea water, description of the state and biology of the oceans, ocean floor topography, basic ocean currents and general circulation, methods of exploration and research. <b>THIS IS NOT A LABORATORY SCIENCE.</b> GER 2/E. 3 hours 3 credit. One day and one evening section.
GEOL 231 and PGEOG 705.90	<b>Principles of Geomorphology</b> – Study of landforms and their evolution. Emphasis is placed on topographic expression of geologic structures and features. GER 2/E or 3/B. 4 hours 3 credits.
GEOL 280	<b>Marine Geology</b> – morphology of the ocean floor. Genesis and distribution of marine sediments. Use of geophysical and oceanographic data. GER 3/B. 3 hours 3 credits.
GEOL 383.81 and PGEOG 701.80	<b>Geology of New York State</b> - The course will include updated information about the geologic time scale, rock formations, plate tectonics, bedrock geology, fossils and ancient environments of New York state. <b>Field excursions</b> to the Catskill Mountains, Hudson Highlands, Manhattan Prong and Long Island for direct observation and interpretation of the structure and evolution of some major geologic features of the last 600 million years. GER 3/B. 3 hours 3 credits including field trips. Saturday course.
GTECH 201	<b>Introduction to Geographic Methods</b> – An introduction to various methods for interpreting and analyzing spatial data including spatial statistics, cartography, GIS, remote sensing and survey research. 6 hours 4 credits.
GTECH 361	<b>GIS I</b> – Basic principles and operation of geographic information systems (GIS); computerized systems for capture, storage, management, analysis and display of geographically referenced data and their attributes. Extensive hands-on experience with professional GIS software. Two evening sections. 4 hours 3 credits.
GTECH 385.08 and GTECH 732.55 <b>SPECIAL TOPIC!</b>	<b>Special Topic: Mapping Earth's Surface</b> – This course will present an overview of current GIS techniques, history, recent trends, and modern applications of terrain representation. The course will follow a seminar format which will require students to present course material in a lecture format, as well as develop and demonstrate a related lab assignment. In other words, each student will be responsible for learning one topic and providing a hands-on exercise for the rest of the class. 3 hours 3 credits for undergraduates and 45 hours for graduate students.
GTECH 705	<b>Spatial Data Analysis</b> – Methods for analyzing environmental and social spatial data sets. Topics include point pattern analysis, spatial clustering methods, spatial autocorrelation, and kriging. 60 hours 3 credits.
GTECH 710	<b>Introduction to GIS</b> – Thorough introduction to geographic information systems with an emphasis on spatial data handling and project management. 60 hours including conference. 3 credits. Two evening sections.
GTECH 731	<b>Computer Programming for Geographic Applications</b> – Object-oriented programming methods specific to geographic and cartographic applications; programming assignments; graphics. A programming language in helpful but not required. 90 hours 4 credits.
PGEOG 130 <b>LAB SCIENCE</b>	<b>Weather and Climate</b> – Principles of meteorology and climatology; elements of weather; current weather analysis; weather maps; forecasting patterns and characteristics of world climates; climate change. GER 2/E. 5 hours 4 credits. Ten day, four evening sections. <b>THIS IS A LABORATORY SCIENCE.</b>
PGEOG 250	<b>Earth System Science I</b> – Examination of the earth, including the atmosphere, hydrosphere, lithosphere, and biosphere, as a system. GER 3/B. 4 hours 3.5 credits.
PGEOG 383.61 and PGEOG 705.03 <b>SPECIAL TOPIC!</b>	<b>Beaches &amp; Coasts</b> - introduction to the broad field of coastal geology and coastal dynamics. Lectures and assigned readings deal with natural and anthropogenic influences on various coastal settings, and the problems facing coastal communities. This course will focus on waves, sediment transport processes beaches, barrier island evolution, storm systems, and coastal erosion. The Atlantic coast of New York will be used as a case study, and students are encouraged to participate in local field trips to explore both natural and engineered shorelines. GER 3/B. 3 hours 3 credits.

Also available: GEOG 391, 392, 393, Individual Study in Geography; GEOG 490, Honors in Geography; GEOG 498, Internship; GEOL 391, 392, 393, Individual Study in Geology; PGEOG 391, 392, 393, Individual Study in Environmental Studies; PGEOG 490, Honors in Environmental Studies; PGEOG 498, Internship in Environmental Studies; GEOG 791, 792, 793, Independent Research; GEOG 799.01, Thesis Research.

**Please check the Registrar's searchable schedule of classes for course codes.**