

GEOGRAPHY (GEO)

GEO 100 Selected Topics (1-6 Credits)

Maxwell

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

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Repeatable

GEO 103 Environment and Society (3 Credits)

Maxwell

Relationship between society and the environment. Natural resource use, climate change politics, food and agriculture, energy, water, and sustainability.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 105 World Urban Geography (3 Credits)

Maxwell

Survey of world, urban geography. Major concepts of human geography for non-specialists.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 108 Mapping Today: Technology and Spatial Thinking (3 Credits)

Maxwell

The roles of spatial technologies and data in society and our understanding of space. Emphasis on basic concepts, ethics, access, and privacy. Study and practice of GIS, GPS, remote sensing, cartography, and social media technologies.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

GEO 155 The Natural Environment (3 Credits)

Maxwell

Patterns of the physical phenomena at and near the surface of the earth. Surface configuration, climate, vegetation, and soil and their areal interrelationships.

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 171 Human Geographies (3 Credits)

Maxwell

An integrative overview to human geography. Topics include human-environmental relations, demographic change, cultural landscape; urban and agricultural land use and economic restructuring.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 180 International Course (1-12 Credits)

Maxwell

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the SU academic department to assign the appropriate course level, title, and grade for the student's transcript.

GEO 190 Independent Study (1-6 Credits)

Maxwell

Repeatable

GEO 200 Selected Topics (1-6 Credits)

Maxwell

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

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Repeatable

GEO 203 Society and the Politics of Nature (3 Credits)

Maxwell

Biophysical and social contexts of environmental problems and decision making. U.S. and international issues considered, linking local, regional, and global scales of analysis. Case examples include water management, energy policy, global warming, sustainable development.

GEO 215 Global Environmental Change (3 Credits)

Maxwell

Focusing on physical processes and patterns of environmental change, changes occurring as a result of human activities, and the social consequences of environmental change.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

GEO 270 Experience Credit (1-6 Credits)

Maxwell

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing.

Repeatable

GEO 272 World Cultures (3 Credits)

Maxwell

The globalization of culture and the persistence of local cultures around the world. Case studies from different regions of the world examine geographical processes that shape ways of life.

University Requirement Course: IDEA Requirement Eligible

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 273 Geography of Capitalism: The Political Economy of Global Inequality (3 Credits)*Maxwell*

A geographical approach to the political economy of capitalism. Introduces key theories of capital accumulation, uneven development and social struggle. Covers the historical geography of global capitalism and contemporary case studies.

University Requirement Course: IDEA Requirement Eligible

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

GEO 280 International Course (1-6 Credits)*Maxwell*

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript.
Repeatable

GEO 290 Independent Study (1-3 Credits)*Maxwell*

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.
Repeatable

GEO 300 Selected Topics (1-6 Credits)*Maxwell*

Selected Topics
Repeatable

GEO 304 Sustainability on Trial: Environmental Justice in Northern Europe (3 Credits)*Maxwell*

Offered regularly through Syracuse Abroad. This traveling seminar examines contested approaches to ¿green¿ infrastructure and culture throughout Scandinavia. Focused on human-nature interactions, the connections between global climate patterns and local politics, and inequalities. Offered only through Syracuse Abroad.

University Requirement Course: IDEA Requirement Eligible

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 310 Climates of Resistance: Environmental Racism and Collective Action (3 Credits)*Maxwell*

Cross-listed with NAT 310

Examination of the reality of systemic environmental inequalities, US and globally, with attention to the experiences of Black, Indigenous, and People of Colour in the 21st century. Theoretical frameworks include environmental justice, ecofeminism, human-nature dualisms, agency & intersectionality.

GEO 313 The United States (3 Credits)*Maxwell*

Cultural, social, and regional approaches to understanding the geography of the United States. American national identity and cultural landscape, regional consumer behavior patterns, and current regional issues.

Shared Competencies: Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 314 Hazardous Geographic Environments (3 Credits)*Maxwell*

Mapping and public policy for natural and technological hazards. Risk perception, geographic modeling, and vulnerability assessment. Mitigation measures, risk mapping, land-use restrictions, and emergency planning.

GEO 316 River Environments (3 Credits)*Maxwell*

Characteristics of river environments, including hydroclimatology, floods, landforms, vegetation, human impacts, and resource management issues.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 317 Geography of Mountain Environments (3 Credits)*Maxwell*

Physical and human geography of mountain regions. Focus on tectonic, geomorphological, biogeographical, and climatic processes; resource use problems and patterns, conservation, and development; environmental hazards.

GEO 319 Cold Environments (3 Credits)*Maxwell*

An exploration of environmental processes, interactions, and environmental problems in the cold regions of the world, emphasizing the Arctic.

Prereq: GEO 155 and (GEO 103 or 171 or 272)

GEO 321 Latin American Development: Politics & Environment (3 Credits)*Maxwell*

Cross-listed with LAS 321

This class examines the political ecologies of economic development in Latin America. In particular, we will focus on the ways in which Latin American environments and natural resources have been (and continue to be) enrolled in projects of regional, national, and local development.
University Requirement Course: IDEA Requirement Eligible

GEO 323 Quantitative Methods in Human Geography (3 Credits)

Maxwell

Double-numbered with GEO 623

Critical examination, creative exploration, and application of quantitative methods in human geography. Creative use of quantitative geographic analysis on various social and environmental justice issues, covering various methods in spatial statistics, categorical data analysis, research design, and visualization. Additional work for graduate students.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 324 Maps, Power, History (3 Credits)

Maxwell

Cross-listed with HST 435

Maps, Power, History (MPH) examines the role and place of maps in the societies that produced and consumed them. We will consider maps as visual embodiments of space that are uniquely human endeavors that produce and reproduce deeply rooted cultural concepts and beliefs and that contribute to the places they depict and represent.

GEO 325 Latin American Historical Geography (3 Credits)

Maxwell

Through lectures and discussion, the course provides a broad introduction to the many historical geographies of Latin America and the Caribbean.

GEO 326 The Geography of Climate and Weather (3 Credits)

Maxwell

Atmospheric dynamics emphasizing spatial distributions of energy and moisture at several scales. Weather phenomena, regional climates, and human-induced perturbations and modifications of climate systems.

Land-use change, climate change and urban climatologies.

Prereq: GEO 155 or EAR 101

GEO 327 Geography of Coastal Environments (3 Credits)

Maxwell

Natural environmental processes in the coastal zone. Emphasis on coastal transformation due to climate variability and change, estuarine pollution and habitat destruction, human modification; and subsequent associated societal hazards and implications.

Prereq: GEO 155

GEO 328 Political Ecology (3 Credits)

Maxwell

With late twentieth-century roots in the social sciences, and a strong commitment to social and environmental justice, political ecology is an interdisciplinary and critical approach to the study of society-environment

GEO 331 The European Union (3 Credits)

Maxwell

Geo- political foundations, economic and political developments, European community institutions, integration and external relations.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 333 Southeast Asia: From Internationalism to Globalization (3 Credits)

Maxwell

Broad geographical survey of Southeast Asia, focusing especially on political and economic development from the 19th-century colonial period to the present.

GEO 336 Climate Justice (3 Credits)

Maxwell, Arts & Sciences

Cross-listed with AAS 336

Critical geographical inquiry into climate change's uneven and inequitable impacts globally, investigating various climate injustices and their interconnections across social, political, economic, ecological, and ethical dimensions. Engages with interdisciplinary approaches and concepts of climate justice.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 340 Geography of Oil (3 Credits)

Maxwell

The topic of oil used to explore the concerns of human geography with society, space, and the natural environment. By learning about oil we will cover themes and concepts important to environmental, political, cultural, economic and urban geography.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 347 Art and Environment in American Culture Since 1800 (3 Credits)

Maxwell

Cross-listed with HOA 482

Visual arts and environmental concern in the U.S. from the early national period to the present. Emphasizing diversity of artists and forms, the changing cultural constructions of nature, and tracing an ecological tradition in art.

GEO 353 Geographies of Environmental Justice (3 Credits)

Maxwell

The relationship between environmental quality and social justice. Spatial aspects of unequal distribution of environmental risks and benefits. Case studies drawn from urban rural examples in both the United States and the Third World.

University Requirement Course: IDEA Requirement Eligible
Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

GEO 354 American Environmental History and Geography (3 Credits)

Maxwell

Cross-listed with HST 384

Relationship between Americans and the natural environment from the colonial period to the present. Ecological imperialism, technology and nature, resource-management conflicts, urban environments, development of conservation and environmentalism.

GEO 356 Environmental Ideas and Policy (3 Credits)*Maxwell*

Fundamental ideas relating to underlying evolution and implementation of environmental policy in the USA.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

GEO 358 Animals and Society (3 Credits)*Maxwell*

Relations between people and animals employing approaches from the social sciences and humanities. Topics include history and geography of animals in America, managing wildlife, zoos, animals in popular culture, pets and companion animals.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

GEO 360 Sustainability Science and Policy (3 Credits)*Maxwell*

Cross-listed with PSC 360

Examines sustainability science, communications, and public policy through the lens of climate-what is known about climate change and impacts, what motivates public understanding, and what actions through mitigation and adaptation make progress toward sustainability.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 361 Global Economic Geography (3 Credits)*Maxwell*

World patterns of production and consumption in the context of regional resources and population problems. Impact of technological change on geographic organization of economic systems. Concepts in economic geography and their policy implications.

GEO 362 The European City (3 Credits)*Maxwell*

Historical development of Europe through its cities. Growth and form of European cities; how they are governed and planned.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 363 Cities of North America (3 Credits)*Maxwell*

Urban images and sense of place. Urbanization and urban growth. Urban functions and form. Social patterns, change, and transformations of urban landscapes. Housing, neighborhood, and land-use change.

GEO 364 Urban Social Justice (3 Credits)*Maxwell*

Discuss key concepts in urban geography by foregrounding social justice issues across diverse urban contexts. Analyze case studies of urban struggles in various cities in the United States and other parts of the world (e.g. gentrification, immigration, violence, racial capitalism).

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 367 Gender in a Globalizing World (3 Credits)*Maxwell*

Cross-listed with ANT 367, WGS 367

Economic and cultural processes of globalization as they affect different groups of men, women, and households; including gender and work, development and environmental change, and redefinitions of masculinity and femininity across the globe.

University Requirement Course: IDEA Requirement Eligible

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 371 Climate Extremes (3 Credits)*Maxwell*

Climate extremes are becoming more damaging around the world: US disaster costs have increased by more than a factor of 3 since the 1980s. This class will explore the science and impacts of weather disasters from a variety of perspectives, using tools and data from climate science.

GEO 372 Political Geography (3 Credits)*Maxwell*

Geographic analysis of the political process at a variety of spatial scales - international, intra-national, and urban. Origins of territorial organization and conflicts over access to and use of space.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 374 Environment and Development in the Global South (3 Credits)*Maxwell*

Critical analyses of international development in theory and practice, especially as it relates to environmental change in complex ways in the Global South. Topics include modernization, participation, community, gender, sustainability, agriculture, trade, water, climate change.

GEO 380 International Course (1-12 Credits)*Maxwell*

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript.

Repeatable

GEO 381 Cartographic Design (3 Credits)*Maxwell*

An introduction to map design, which includes clarifying communication goals, finding solutions, using graphics to promote an understanding of landscapes and spatial patterns, and exploring aesthetics, conceptual thinking, geometries, and ethics of cartographic representation.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

GEO 382 Counter-Mapping (3 Credits)*Maxwell*

Exploration of various forms of counter-mapping (e.g., indigenous mapping, art mapping, digital mapping, protest mapping, anti-racist mapping) and critical analysis of their scholarly, political, and ethical implications. Mapping exercises that highlight social justice issues. Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

GEO 383 Geographic Information Systems (3-4 Credits)*Maxwell*

Double-numbered with GEO 683

Basic concepts in spatial data handling. Algorithms and data structures for Geographic Information Systems (GIS). Demonstration of power, potential, and limitations of GIS. Graduate students register for three credits. Undergraduate students register for four credits with required laboratory work.

Shared Competencies: Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 386 Quantitative Geographic Analysis (3 Credits)*Arts & Sciences, Maxwell*

Double-numbered with GEO 686

Descriptive and inferential statistics for use geo-referenced data, spatial autocorrelation, and geostatistics. Geographic examples. Weekly labs.

Individualized advanced work and term project.

Prereq: MAT 121 or 183 or 221 or STT 101

GEO 388 Geographic Information and Society (3 Credits)*Maxwell*

Double-numbered with GEO 688

Effects of geographic information technologies on governments, communities, and individuals. Mapping as an information industry, a political process, a surveillance technology, and a communication medium. Copyright, access, hazard management, national defense, public participation, and privacy.

GEO 390 Independent Study (1-6 Credits)*Maxwell*

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.

Repeatable

GEO 396 European Integration (3 Credits)*Maxwell*

Cross-listed with PSC 396

Focuses on the origins, nature, and likely future course of the European Union. More generally, examines five long-range challenges facing contemporary Europe: Demographic decline; Globalization; Civic Integration; Great Power Rivalry; and Sustainable Development. Please note that PSC 396 and PSC 405 cannot both be taken for credit.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 400 Selected Topics (1-6 Credits)*Maxwell*

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable

GEO 405 Conservation and Management Protected Areas: South Africa-OTS (4 Credits)*Maxwell*

Cross-listed with ANT 405

Taught in South Africa through the Organization for Tropical Studies program. Analyze management of wildlife and natural resources within ecological, political, social, historical, and economic context of South Africa.

GEO 415 Food: A Critical Geography (3 Credits)*Maxwell*

Critical examination of the social, political and environmental aspects of contemporary agri-food systems. Topics include industrial and alternative agriculture, fisheries, food policy, hunger, health issues and food justice. Involves field-based and mapping assignments.

GEO 420 Labor Geography (3 Credits)*Maxwell*

This course reviews the development of labor geography and the restructuring of work and employment in both advanced and developing capitalist nations, focusing on workers and their collective agency to improve conditions through organizing, within the workplace and in broader community struggles.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 422 Water: Environment, Society and Politics (3 Credits)*Maxwell*

Double-numbered with GEO 622

Critical geographical analyses of inter-connected and cross-scalar role of water in environment, society, politics and economy globally. Investigates various water-society relationships, water governance, policies, crises, struggles, controversies, conflicts, and water justice, in theory and practice. Additional work required of graduate students.

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 423 Urban Environmental History and Political Ecology (3 Credits)*Maxwell*

History of how residents and policy makers have transformed the urban environment over the past two centuries. Topics include coping with disease, drinking water, air and water pollution, urban parks, and cities and climate change.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 426 Environmental Change in the Anthropocene (3 Credits)*Maxwell*

Double-numbered with GEO 626

Investigation of the roots of the Anthropocene as a concept and a geologic epoch; examination of human drivers of and interactions with global environmental change. Additional work required of graduate students.

Prereq: GEO 103 or GEO 155 or GEO 215

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 428 Auld Reekie: Scotland and the Road to London (3 Credits)*Maxwell*

Field studies seminar examining popular and elite cultural forms that organize life in Britain. Emphasizes interaction with local culture environments to explore contemporary identities and how and why identity and attitude are formed. Offered in London only.

GEO 430 Energy, History and Society (3 Credits)*Maxwell*

Explores the role of energy resources in shaping historical, social, and political change.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 432 Authoritarianism & the Environment (3 Credits)*Maxwell*

Advanced seminar on authoritarianism and environmental politics, from a global perspective. Contemporary and historical analysis of how authoritarianism intersects environmental issues related to nationalism, the far right, climate change, and post-oil futures.

GEO 434 Pursuing Sustainability Policy (3 Credits)*Maxwell*

Cross-listed with PSC 434

An introduction to sustainability policy-examining the complex systems approach to sustainable development, comparing conventional approaches and analytical tools for environmental policy, and drawing from case studies and theoretical materials.

GEO 435 The Global Middle East (3 Credits)*Maxwell*

Survey of political, cultural, and nature-society geographies of the Middle East; focus on the region's global connections through geopolitics, culture, urban life, and environmental themes.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 440 Race and Space (3 Credits)*Maxwell*

Critical geographic study of race and racism as formative aspects of sociocultural, economic and political processes. Focus on race/racism's operations across scales, with particular attention to gender, class, culture, colonialism, citizenship, power, and resistance.

University Requirement Course: IDEA Requirement Eligible

GEO 450 Geographies of Migration and Mobility (3 Credits)*Maxwell*

This course examines human migration and its sociocultural and political impacts on sending and receiving communities. Focused on the mobility of people, ideas, and commodities, it investigates migration's role in producing and transforming human geographies.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

GEO 455 Biogeography (3 Credits)*Maxwell*

Double-numbered with GEO 655

Exploration of the environmental factors that influence the distribution of organisms. Emphasis is on plant distributions and dynamics, and consideration includes both natural and human factors. Additional work required of graduate students.

GEO 459 Pyrogeography: Wildfire in a Changing World (3 Credits)*Maxwell*

Double-numbered with GEO 659

Comprehensive treatment of the geography of wildfire. Topics include fire behavior, approaches to firefighting, ecological and human impacts of wildfire, geographic and historical variation in fire regimes, and the impacts of climate change on wildfire. Additional work required of graduate students.

GEO 470 Experience Credit (1-6 Credits)*Maxwell*

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing.

Repeatable

GEO 473 Geography of Memory (3 Credits)*Maxwell*

Double-numbered with GEO 673

Memories play a key role in shaping how individuals and communities narrate their identities. Memories are also geographical, embedded in specific places, spaces, and landscapes. This seminar examines how those geographies are made through a wide range of social, cultural, and political practices. Additional work required for graduate students.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Ethics and Integrity (<https://coursecatalog.syracuse.edu/shared-competencies/ethics-and-integrity/>)

GEO 476 Advanced GIS Analysis and Applications (3 Credits)*Maxwell*

Double-numbered with GEO 676

This course introduces students to (i) concepts and methodologies of 3D GIS (Geographic Information System) analysis; (ii) typical applications of 3D analysis in urban design and planning; and (iii) basic interface and operations in ArcGIS pro. Additional work required for graduate students.

Advisory recommendation Prereq: GEO 383

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

GEO 478 Spatial Storytelling (3 Credits)

Maxwell

Double-numbered with GEO 678

Techniques and impacts of spatial storytelling from a geohumanities perspective. Ways of conceptualizing space, time, and realities. Study and practice with maps, texts, images, video, and other visualization techniques. Additional work required of graduate students.

GEO 479 Introduction to Unmanned Aerial Vehicles: Research & Applications (3 Credits)

Maxwell, Arts & Sciences

Cross-listed with EAR 479

Double-numbered with GEO 679

Introduction to UAV operations, including FAA airspace, platforms and sensors; flight planning, data collection, image processing, and data analysis for geospatial mapping. Applications and societal impacts, including legal, safety, privacy, ethical issues. Additional work required of graduate students.

GEO 480 International Course (1-8 Credits)

Maxwell

Offered through SUAbroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUAbroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript
Repeatable

GEO 482 Environmental Remote Sensing (3-4 Credits)

Maxwell

Double-numbered with GEO 682

Principles and environmental applications of remote sensing. Uses and limitations of remotely-sensed data; typical image processing operations and analyses; laboratory work and individual term project using remotely-sensed imagery. Additional work required for graduate students.

Shared Competencies: Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

GEO 484 GIS for Urban Environments (3 Credits)

Maxwell

Double-numbered with GEO 684

Intermediate GIS methods for the study of urban environments and systems. Emphasis on practical and applied uses of GIS, project management and spatial analysis. Laboratory exercises, case studies, and course projects use real world data. Additional work required of graduate students.

Prereq: GEO 383

Shared Competencies: Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

GEO 485 Community Geography (3 Credits)

Maxwell

Double-numbered with GEO 685

Introduces community-based and participatory research methods and participatory GIS, including origins, ethics and challenges. Examines how and why grassroots organizations use GIS and geospatial technologies. Students conduct local research projects. Additional work required of graduate students.

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>); Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

GEO 489 Practicum in Community Geography (1-3 Credits)

Maxwell

Double-numbered with GEO 689

Supervised 135 hour internship in community-based participatory action research. Students work across disciplines and collaborate with community-based organizations to conduct geographic research on contemporary community issues. Additional work required of graduate students. Permission to enroll required.

Repeatable 4 times for 12 credits maximum

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 490 Independent Study (1-6 Credits)

Maxwell

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.

Repeatable

GEO 491 Senior Seminar in Geography (3 Credits)

Maxwell

Research and presentations in a selected field of geography. Topic announced each time offered. Primarily for advanced geography majors and minors.

Repeatable

Prereq: GEO 103 and 155 and 171

GEO 492 Senior Thesis Seminar (3 Credits)

Maxwell

Seminar for senior geography majors graduating with distinction. Individualized and small-group mentoring and directed research.

GEO 499 Honors Capstone Project (1-3 Credits)

Maxwell

Completion of an Honors Capstone Project under the supervision of a faculty member.

Repeatable 3 times for 3 credits maximum

GEO 500 Topics in Geography (1-6 Credits)

Maxwell

In-depth studies of selected topics.

Repeatable

GEO 537 Environmental Policy in a Development Context (3 Credits)

Maxwell

Cross-listed with LAS 537

Offered only in Santiago. Examines historical/intellectual/ material processes that transformed nature into natural resources to be exploited; ways global political process has guided global responses to environmental problems; Chilean environmental policy over the last 20 years.

GEO 561 Global Economic Geography (3 Credits)

Maxwell

Globalization, world economic processes, international development, and policy issues; emphasizing geographical perspectives.

GEO 563 The Urban Condition (3 Credits)

Maxwell

Contemporary cities. Economic growth and decline. Social polarization. Construction of the built environment. Case studies from around the world.

GEO 564 Urban Historical Geography (3 Credits)

Maxwell

Cities in western civilization through classical, medieval, mercantile, and industrial eras to 1945. Historical geographic meanings of urbanism; social construction of the built environment; and relationships between power, social justice, and urban spatial form.

GEO 572 Landscape Interpretation in Cultural Geography (3 Credits)

Maxwell

Contemporary theories and methods. Traditional, historical-materialist, postmodernism, and post-structuralist approaches to landscape. Additional work required of graduate students.

GEO 573 The Geography of Capital (3 Credits)

Maxwell

In-depth reading of Marx's *Capital* to understand: (a) the relationship between political economy and the geographical landscape; (b) the formative role of "Capital" in contemporary geographic theory.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

GEO 576 Gender, Place, and Space (3 Credits)

Maxwell

Cross-listed with WGS 576

Contemporary debates in feminist geography on the gendered construction of space and the spatial construction of gender.

GEO 580 Research on Cartographic Techniques (1-12 Credits)

Maxwell

Reading and special work.

Repeatable

GEO 583 Environmental Geographical Information Science (3 Credits)

Maxwell

Data types, collection techniques, and processing strategies in natural resource survey. Monitoring and environmental sciences. Basic concepts of GIS data structures and algorithms. Data quality issues. User requirements, management aspects, and implementation experience.

Prereq: GEO 383 or 683

GEO 595 Geography and the Internet (3 Credits)

Maxwell

An introduction to the structure and functions of the Internet and its impact on spatial relations from the global to the local. A detailed examination of the World Wide Web and practical training in web page design.