

# Geography (GEOG)

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## **GEOG 5000 [0.5 credit]**

### **Approaches to Geographical Inquiry**

A review of the major philosophical perspectives shaping research and explanation by geographers. Particular attention is paid to interpretations of social structure and human action, the nature of the biophysical universe, and the interaction between human beings and their environments.

## **GEOG 5001 [0.5 credit]**

### **Modeling Environmental Systems**

Methods and problems of research on the physical environment, with illustrative material taken from the atmospheric and surface earth sciences. Issues such as the identification and behaviour of environmental systems, temporal and spatial scale, experimental method under field conditions, and simulation and model development are considered.

## **GEOG 5002 [0.5 credit]**

### **Quantitative Analysis for Geographical Research**

Quantitative techniques and methods for research on the natural and cultural environment. Topics include sampling, experimental design, replication, variance, correlation, time series analysis, statistical uncertainty, simulation, calibration, validation.

## **GEOG 5003 [0.5 credit]**

### **Critical Approaches to Qualitative Inquiry**

Development of critical skills in qualitative research by considering the relationship between theory and method. Engaged scholarship and participatory, community-based, action research. Practical experience with select methods including: interviews, personal narratives, focus groups, participant observation, archival research, discourse analysis, and visual methodologies.

## **GEOG 5005 [0.5 credit]**

### **Global Environmental Change: Human Implications**

Global environmental change: its significance for societies, economies and international relations. Value systems underlying environmental discourse; political economy of the environment; sustainability and security. Environmental diplomacy and grassroots environmentalism. Regionalized impacts of pressures on natural environments; challenges of adaptation.

Also listed as INAF 5701.

## **GEOG 5006 [0.5 credit]**

### **Special Topics in Geography of the Environment**

Research seminar on a selected theme within geographical approaches to environmental analysis. Topics will vary from year to year. Consult departmental web site for current details.

## **GEOG 5103 [0.5 credit]**

### **Hydrologic Principles and Methods**

Advanced physical hydrology with emphasis on atmospheric moisture, precipitation, evaporation, infiltration, soil water physics, snow hydrology and runoff generation. Analytical approaches and methods to solve practical hydrological problems.

## **GEOG 5104 [0.5 credit]**

### **Advanced Biogeography**

Current methods and theories in paleoecology are examined: dendrochronology, paleolimnology and other techniques for examining past climates and environmental condition. Numerical approaches to climate change studies.

## **GEOG 5107 [0.5 credit]**

### **Field Study and Methodological Research**

Field acquisition and analysis of geographic material; supervised field observations and methodology. (Individual or group basis, by special arrangement.).

## **GEOG 5201 [0.5 credit]**

### **Special Topics in the Geography of Development**

Research seminar within geographical approaches to development focusing on a selected theme or region. Topics vary from year to year. Consult departmental web site for current details.

## **GEOG 5303 [0.5 credit]**

### **Geocryology**

Development of ground ice in permafrost regions of Canada; ice segregation and pore-water expulsion during ground freezing; analytical and numerical approaches to modeling permafrost conditions.

Prerequisite(s): GEOG 4108 or permission of the Department.

## **GEOG 5307 [0.5 credit]**

### **Soil Resources**

Physical, mineralogical, chemical, and other properties of soils will be studied in agricultural, environmental, geomorphological and/or geotechnical contexts, as relevant to the students enrolled.

## **GEOG 5400 [0.5 credit]**

### **Territory and Territoriality**

Contemporary geographical and international relations theorizing is challenging notions of boundaries and territories in the political organization of modernity. Using contemporary writings on geopolitics, security, sovereignty, self-determination and identity politics this course investigates territoriality as a political and intellectual strategy.

Also listed as INAF 5402.

## **GEOG 5406 [0.5 credit]**

### **Special Topics in Cultural Geography**

Research seminar on a selected theme within cultural (including historical) geography. Topic varies from year to year. Consult departmental web site for current details.

**GEOG 5500 [0.5 credit]****Special Topics in the Study of Cities and Urbanization**

Research seminar on a selected theme within geographical approaches to the study of cities and urbanization. Topics will vary from year to year. Consult departmental website for current details.

**GEOG 5502 [0.5 credit]****Special Topics in Geography of Globalization**

Research seminar on a selected theme within geographical aspects of globalization. Topic varies from year to year. Consult departmental web site for current details.

**GEOG 5600 [0.5 credit]****Empire and Colonialism**

Theoretical approaches to empire and colonialism: postcolonial, feminist, Indigenous, anti-racist, queer, decolonizing, and political-economic approaches. Consideration of a range of sites of imperial and colonial formation, including land, territory, nature, the body, sexuality, gender, and race, as well as forms of resistance, resurgence, and decolonization.

**GEOG 5701 [0.5 credit]****Topics in Northern Human Geography**

Political, social, economic, cultural, and environmental geographies of the Canadian North and/or circumpolar North. Topics may include climate change, resource development, politics and governance, knowledge and expertise, geopolitics, sovereignty, colonialism, Indigenous knowledge, Indigenous self-determination, conservation and wildlife, environmental politics.

**GEOG 5803 [0.5 credit]****Seminar in Geomatics**

Current research issues in geomatics, including remote sensing, geographic information systems, geographic positioning, and cartography. Topics will focus on combined interests of enrolled students and departmental faculty.

Prerequisite(s): prior experience with GIS, GPS, remote sensing or cartography and permission of the department.

**GEOG 5804 [0.5 credit]****Geographic Information Systems**

GIS for students with no previous experience. Includes data formats and structures, input/output and analysis capabilities, and GIS applications.

**GEOG 5900 [0.5 credit]****Graduate Tutorial**

Tutorial, directed reading or research, offered on an individual basis, to meet specific program needs; may be taken in one of the areas of specialization of the Department.

**GEOG 5905 [0.5 credit]****Masters Research Workshop**

A workshop which focuses on the challenges of research design in the various sub-fields of geography. The workshop will culminate with the development and defence of a thesis research proposal.

**GEOG 5906 [2.5 credits]****M.Sc. Thesis**

Thesis supervision will be given in Physical Geography, as listed in the introductory section of this department's program description.

**GEOG 5909 [2.5 credits]****M.A. Thesis**

Thesis supervision will be given in all areas of specialization of the Department, as listed in the introductory section of this department's program description.

**GEOG 6000 [0.5 credit]****Doctoral Core Seminar: Geography, Society and the Environment**

Geographical perspectives on the development of society/environment interrelations in Western thought and critiques thereof. The course is designed to represent and address integrative issues in the two fields of the program, the geography of social change and the geography of environmental change.

**GEOG 6001 [0.5 credit]****Doctoral Core Seminar: Geography, Society and the Environment**

Geographical perspectives on the development of society/environment interrelations in Western thought and critiques thereof. The course is designed to represent and address integrative issues in the two fields of the program, the geography of social change and the geography of environmental change.

**GEOG 6003 [0.5 credit]****Field Seminar: Geography of Societal Change**

Analysis of current geographical and related research into the three themes of global political economy: restructuring and the environment; geographies of socio-cultural evaluation; and feminist geographies.

**GEOG 6004 [0.5 credit]****Field Seminar: Geography of Societal Change**

Analysis of current geographical and related research into the three themes of global political economy: restructuring and the environment; geographies of socio-cultural evaluation; and feminist geographies.

**GEOG 6006 [0.5 credit]****Field Seminar: Geography of Environmental Change**

Analysis of geographical and related research into the appraisal and societal management of environmental resources, and environmental processes and anthropogenic impacts.

**GEOG 6007 [0.5 credit]****Field Seminar: Geography of Environmental Change**

Analysis of geographical and related research into the appraisal and societal management of environmental resources, and environmental processes and anthropogenic impacts.

**GEOG 6906 [0.0 credit]****Comprehensive Examination: The Geography of Societal Change**

This examination focuses on research challenges in theory and methodology in the themes of global political economy: restructuring and the environment; geographies of socio-cultural evaluation; feminist geographies. A specific theme will be identified for each candidate.

**GEOG 6907 [0.0 credit]****Comprehensive Examination: The Geography of Environmental Change**

This examination focuses on research challenges in theory and methodology associated with the appraisal and societal management of environmental resources, and environmental processes and anthropogenic impacts. A specific theme will be identified for each candidate.

**GEOG 6909 [8.0 credits]****Ph.D. Thesis**