

***4461 Contemporary French Literature**

3 credit hours

Prerequisite: FREN 3350, 3351 and 3307 and 3308, with a minimum grade of C.

The course focuses on France's major authors from the 1980s to the present. The course explores how the traditional literary genres of theatre, poetry and the novel are often replaced by free-form genres, especially in the works of women writers.

4500 The Honors Essay

6 credit hours

French Honors' students are required to submit a substantial essay or complete a research project selected and prepared in conjunction with a faculty advisor. .

4826 - 4849 Special Topics in Francophone Studies

3 credit hours

Prerequisite: French 3350 and French 3351

The purpose of these courses is to introduce students to the riches and variety of voices and contemporary Francophone cultures throughout the world, outside France and Québec. Topics to be considered include: issues of history, resistance, identity, gender and race. Students will discover the Francophone world through the media of literature, newspaper articles, art, music and film, which will enable them to develop informed perspectives on the emergence of diverse French-speaking cultures.

4876 – 4899 Directed Study

3 credit hours

A three (3) credit hour course open to students who wish to study a special author or subject through tutorials, independent study and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the readings and study.

Geography (GEOG)

Chairperson,

Associate Professor

C. Conrad

Professors

R. McCalla, H. Millward

Associate Professors

P. Giles, C. Suteanu, D. van Proosdij

Assistant Professor

J. Grek Martin

Professor Emeritus

D. Day

Co-op Educational

D. van Proosdij

Advisor

General Information

Geography is the study of the Earth's surface, and of the spatial distribution and patterns of its physical and human characteristics. Geographers study how nature and culture work to create distinct spaces, places, landscapes, and regions. Geography is a subject of practical importance in such fields as urban and regional planning, industrial location, marketing, resource development, environmental monitoring and management, and geomatics. It is possible to obtain a major or honours in geography in either a Bachelor of Arts or Bachelor of Science degree program.

Departmental Policy

1. The Department regards 1000-level courses as both service courses for the university in general and basic introductory courses for geography majors.

2. The course content in most geography courses is cumulative.

3. Where a prerequisite is specified, a student wishing to take the course must have obtained at least a C grade in the stated prerequisite.

4. Normally 2000, 3000, and 4000-level courses are not open to students in their first year at university.

5. Because program changes occur from time to time with renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level or under a different number.

6. Majors and honours students must normally complete GEOG 2316 and GEOG 2336 before the end of their second year or, in the case of part-time students, before proceeding to other upper level courses.

7. All majors and honours students are assigned a faculty advisor with whom they should consult each year to review their progress and course selection.

8. The Department of Geography recognizes the importance of developing students' communication skills in preparation for participating in the work force and/or continuing their education at an advanced level. Therefore, in addition to addressing geographical content, the department is committed to improving the written and oral communication skills of students in Geography courses by including evaluation of these communication skills in course work...

9. For more complete information on geography programs, students should contact the Chairperson.

10. Geography courses are divided into four groups:

Group A -human geography courses;

Group B -physical geography courses;

Group C -techniques or methods courses;

Group D -integrative courses which may combine aspects of human geography, physical geography or techniques.

Depending on the degree program, Bachelor of Arts or Bachelor of Science, the required courses from each group vary. The group to which each course belongs is shown beside each course's title.

General Requirements for a Major

Geography is both a social science as well as a natural science. Students may major in geography and obtain a Bachelor of Arts or Bachelor of Science degree. In either case forty-eight (48) geography credit hours are required. Not only must students meet the geography requirements to qualify for a major in geography in either a Bachelor of Arts or Bachelor of Science degree, they must also meet individual Faculty requirements to qualify for the degree (see relevant sections of the Calendar). Students in the Faculty of Arts must maintain a minimum cumulative grade point average of 2.00 (an average grade of C) in courses used to meet the minimum credit requirements for the major. Students in the Faculty of Science must obtain a grade of not less than C in every course used to meet the minimum credit requirements for the major. Students wishing to major in geography in the B.Sc. program are strongly encouraged to take at least six (6) credit hours in geology.

General Requirements for a Major in Bachelor of Arts Program

- i. GEOG 1100, GEOG 1200, and one of 2100 or 2200;
- ii. GEOG 2316, 2336 and three (3) credit hours from GEOG 3326, 3356, 3366, or 3386;
- iii. Students must attain a grade of C or higher in GEOG 2316 and GEOG 2336;
- iv. Nine (9) credit hours in GEOG at the 4000-level; and
- v. Twenty-one (21) credit hours in GEOG.

Note: In addition to the eighteen (18) credit hours defined in (i) and (ii), the thirty (30) additional credit hours in GEOG may be taken from any group (A, B, C, D). After the student attains forty-eight (48) credit hours in GEOG, only Group A, C, and D courses count towards the "sixty-six (66) credit hours in Arts subjects as the 2000-level or above" (Faculty of Arts Regulation 1a). Additional Group B courses could be taken as electives.

General Requirements for a Major in Bachelor of Science Program

- i. GEOG 1100, GEOG 1200, and GEOG 2100
- ii. GEOG 2316, 2336 and three (3) credit hours from GEOG 3326, 3356, 3366, or 3386;
- iii. At least fifteen (15) other credit hours from Group B courses, of which at least six (6) credit hours must be at the 4000-level; and
- iv. Fifteen (15) credit hours from any group.

- v. A total of nine (9) credit hours in GEOG must be at the 4000-level.

Note: After the student has attained the required forty-eight (48) credit hours in GEOG, any additional GEOG credits would be taken as free electives in the Faculty of Science.

Concentration in GEOG Requirements

Students registered in the ninety (90) credit hour Bachelor of Arts General Program may complete the concentration requirement in Geography by taking twenty-four (24) credit hours in Geography, to include:

- i. GEOG 1100 and GEOG 1200
- ii. GEOG 2100 or 2200
- iii. Fifteen (15) credit hours in GEOG.

Students registered in the ninety (90) credit hour Bachelor of Science General Program may complete the concentration requirement in Geography by taking thirty (30) credit hours in Geography credits, to include:

- i. GEOG 1100, GEOG 1200, and . GEOG 2100
- ii. nine (9) credit hours from Group B or C courses
- iii. twelve (12) credit hours of GEOG that are not designated.

Double Majors and Geology/Geography Combined Programs

Bachelor of Arts and Bachelor of Commerce double major students would complete the requirements for a geography major in Bachelor of Arts program; Bachelor of Science double major students would complete requirements for a geography major in the Bachelor of Science program.

Note: See the Geology section of the *Academic Calendar* for particular course requirements to complete the Geology/Geography Combined program which allows students to complete either a major or honours.

Geography Major (Bachelor of Arts) with a Minor in Geology

1. A Bachelor of Arts degree student may major in geography with a minor in geology by fulfilling the requirements for a minor as listed in the geology section of the *Academic Calendar*.
2. Students accepted into the geology minor program will be allowed to count twenty-four (24) credit hours in geology towards their Arts degree requirements.

Honours Program

1. Depending on whether the student is undertaking a Bachelor of Arts or a Bachelor of Science degree, the regulations of the respective Faculty apply to admission, continuance and graduation from honours program.
2. To be admitted to the honours program, a student must have at least a B standing in geography courses and have obtained satisfactory grades in non-geography courses. Possession of the minimum requirements does not establish

the right of an applicant to be admitted, or readmitted, to the program.

3. Each year students should seek advice on their program of courses from the Honours Program Coordinator.
4. Students admitted to the program are responsible for finding a member of the Department to act as their Honours Research Project supervisor.
5. Complete details regarding the Honours Research Project are contained in *Regulations for the Honours Research Project (Geography 4520)* available from the Departmental secretary.
6. Besides meeting the respective Faculty credit hours and grade level requirements, students must complete a total of seventy-two (72) credit hours in geography to qualify for graduation with honours.

For the Bachelor of Arts degree, the seventy-two (72) credit hours are:

- i. GEOG 1100, GEOG 1200 and either GEOG 2100 or GEOG 2200;
- ii. GEOG 2316, 2336, and 3326;
- iii. Students must attain a grade of C or higher in GEOG 2316 and GEOG 2336;
- iv. One of GEOG 3356, 3366, or 3386;
- v. GEOG 4406 and 4416;
- vi. GEOG 4526; and
- vii. Thirty-nine (39) other GEOG credit hours from any group of which at least six (6) credit hours must be at the 4000-level.

For the Bachelor of Science degree, the seventy-two (72) credit hours are:

- i. GEOG 1100, GEOG 1200, and GEOG 2100;
- ii. GEOG 2316, 2336, 3326, and one of GEOG 3356, 3366, or 3386;
- iii. At least eighteen (18) other credit hours from Group B courses, of which at least six (6) credit hours must be at the 4000-level;
- iv. GEOG 4406 and 4416;
- v. GEOG 4526; and
- vi. Twenty-one (21) other GEOG credit hours from any group.

Minor Program in Geography

Students in a Bachelor of Arts or Bachelor of Commerce program wishing to complete a Minor in Geography are required to complete at least twenty-four (24) credit hours in geography, including:

- i. GEOG 1100 and GEOG 1200
- ii. GEOG 2100 or 2200
- iii. Fifteen (15) other GEOG credit hours

Students in a Bachelor of Science program wishing to complete a Minor in geography are required to complete at least thirty (30) credit hours in geography, including:

- i. GEOG 1100, 1200, and 2100
- ii. nine (9) credit hours from Group B and C courses
- iii. twelve (12) other GEOG credit hours that are not designated.

In addition to the programs cited above, information on graduate courses, may be found in *the Graduate Academic Calendar*.

Course Descriptions

GEOG 1100 Global Perspectives on Land and Life (Group D)

3 credit hours

An introduction to the world and its major regions, focusing on traits, processes, and geographical patterns which give regions their distinctive character. These elements are derived from the complex interrelationships between human activity and the environment. Regional case studies may include: Europe, monsoon Asia, sub-Saharan Africa, the Middle East, and others.

GEOG 1200 People, Place and Environment (Group D)

3 credit hours

This course introduces environmental geography through an integrative approach that explores how humans have impacted and been impacted by earth's physical systems. Human linkages with the atmosphere, biosphere, hydrosphere and solid earth will be explored. Emphasis will be placed on geographical problems and interaction between humans and environment of varying scales in order to better understand the complexity of our natural world. Where appropriate, case studies will be used to highlight specific methods of geographical analysis.

2100 Fundamentals of Physical Geography (Group B)

3 credit hours

Prerequisite: Either GEOG 1100 or GEOG 1200

This course explains fundamental patterns and phenomena in physical geography by investigating the underlying causes and processes with a quantitative approach. The concepts of systems, equilibrium, stability, and feedback will be incorporated as principal themes. Major topics include: effects of Earth-Sun cycles, radiation and water budgets, atmospheric and oceanic circulation systems, weather and climate controls, and principles of landscape and landform development.

Classes 2 hrs. and lab 2 hrs. a week

GEOG 2200 Fundamentals of Human Geography (Group A)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200.

This course introduces student to concepts and techniques that define geographical analysis of human landscapes. Particular attention will be paid to ways in which geographical patterns both shape and are shaped by cultural, political and economic processes. A lab component introduces students to some of the basic techniques of geographical inquiry. Topics for discussion may include: cultural identities and landscapes, colonialism, state formation, geopolitics, food production, rural settlement patterns, urbanization, industrialization, transportation, economic development, and globalization.

Classes 2 hrs. and lab 2 hrs. a week

2303 The Geography of World Affairs (Group D)

3 credit hours

Prerequisite: at least thirty (30) credit hours.

The course introduces students to various facets of geography and to different approaches to geographical analysis, through a study of major world problems including conflicts over the division of land, sea and outer space; relationships between population growth and resources; food supply and health problems; natural hazards; the effects of climatic change; levels of economic development; ethnic and religious conflicts.

2310 Geography of Canada: Overview (Group D)

3 credit hours

Prerequisite: at least thirty (30) credit hours.

This course provides an overview of the physical, social, cultural and economic geographical characteristics of Canada taken as a whole and within its distinct regions. How humans affect and are affected by the physical environment will be a recurrent theme. The course serves as a prerequisite for GEOG 3310.

2311 Rural Geography (Group A)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200.

Examines the nature of rural settlement and land use in various cultural and technological settings. Emphasis is placed on agricultural patterns, and the changing organization of the countryside in modern societies. Topics include frontier settlement; land surveys; village morphology; land abandonment; farm enlargement and fragmentation; forestry, mining, and recreational uses; commuting; and conflicts over multiple land use and scenic preservation.

GEOG 2315 The Oceans (Group B)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200

A geographic study of the physical, environmental, economic and societal aspects of the world's oceans. Examination of the development of traditional and new uses of the oceans will focus attention on management issues. Regional case studies will be used to illustrate evolving concepts of oceanic management, including marine protected areas, territorial seas, and conflict of use issues.

2316 Map and Air Photo Interpretation**(Group C)**

3 credit hours

Prerequisite: GEOG 1100 and 1200.

The first part of the course will focus on the properties, interpretation, and analysis of official series maps such as topographic maps, land capability maps, and nautical charts. This will be followed by an analysis of the properties of aerial photographs and the principles of air photo interpretation.

Classes 2 hrs. and lab 2 hrs. a week.

2325 Sedimentology (Group B) [GEOL 2325]

3 credit hours

Prerequisite: GEOG 2100 or GEOL 1200 or GEOL 1201.

2336 Principles of Cartography (Group C)

3 credit hours

Prerequisite: GEOG 1100 and 1200.

An introduction to the design, compilation, and construction of maps as a medium for communication and research. Topics include the history of map making, cartographic critique, generalization, lettering, symbolization, and colour. The major types of thematic mapping (proportional symbols, isopleths and choropleths) are studied. Geographic Information Systems (GIS) are introduced.

Classes 2 hrs. and lab 2 hrs. a week.

2390 Geography of Ireland (Group D) [IRST 2391]

3 credit hours

Prerequisite: at least thirty (30) credit hours.

An examination of the physical, social, cultural, economic, and political geography. Special emphasis will be given to the nature of past and present internal population movements and emigration patterns, regional variations in economic development, and the effects of membership in the European Union.

3100 Geography Field School (Group D)

3 credit hours

Prerequisite: GEOG 1100 and 1200, and either GEOG 2100 or 2200, plus permission of the Department Chairperson.

The physical and human geography of a selected region will be studied primarily in the field in this experiential learning course. Trip destinations may vary in different years according to faculty interests and collaborative opportunities that may arise. An integrative regional geography perspective will be taken. Students will be required to attend orientation and preparation classes before the trip, and to complete assigned course work after the trip.

3304 Environmental Management (Group D)

3 credit hours

Prerequisite: GEOG 2100 and 2200, and at least 30 credit hours.

This course provides a framework for effective identification, analysis, and management of environmental systems at different scales. It introduces concepts and methods designed to address real-world problems characterized by complexity, uncertainty, and change. Specific geographical environments and selected management issues (such as water pollution, soil erosion, and waste management), are examined, together with methods of environmental planning and impact assessment, including practical aspects of environmental management standards.

3312 Urban Land Use (Group A)

3 credit hours
Prerequisite: GEOG 2200.

The course analyzes the pattern of land use and the process of land use change in the city. Topics include: measurement and classification of land use; land use mix; models of the internal structure of cities; land values and land use zoning; the characteristics and use of residential, commercial, manufacturing land in cities; public and semi-public land; the impact of public policies on urban land use.

3313 Geomorphology (Group B) [GEOL 3373]

3 credit hours
Prerequisite: GEOG 2100; or GEOL 1214 and 1215.

Geomorphology is the scientific study of landforms and landscapes. This course explores the basic principles of geomorphology, with an emphasis on Canadian landscapes, and prepares students for advanced studies in coastal, fluvial, and glacial geomorphology. A field trip will normally be offered.

Classes 2 hrs. and lab 2 hrs. a week. Some field work may be required.

GEOG 3319 Geographic Perspectives on Culture (Group A)

3 credit hours
Prerequisite: GEOG 2200

This course critically examines the complexities of culture by exploring the various ways in which culture both shapes and is shaped by geographic landscapes. Potential topics will include: landscapes of consumption, cultural imperialism in the colonial past and postcolonial present, geographies of multiculturalism, sites of heritage and commemoration, and geographic dimensions of identity formation (e.g. gender, sexuality, race, religion, nationality).

3321 Geography of Manufacturing (Group A)

3 credit hours
Prerequisite: GEOG 2200.

The course concerns the identification of key factors, and a discussion of their influence, in the geographical distribution and location of manufacturing industries. Both location theory and case studies are used to analyze the location of these industries. Examples include iron and steel, motor vehicles, and oil refining.

3326 Statistical Methods for Geographers (Group C)

3 credit hours
Prerequisite: GEOG 2100 or 2200.

This course introduces students to methods and problems in the collection, description, and analysis of geographic data. Included are descriptive and inferential statistics for spatial data, regression and correlation, analysis of patterns, and use of statistical package programs.

Classes 2 hrs. and lab 2 hrs. a week.

3329 Geographic Perspectives on Nature (Group A)

3 credit hours
Prerequisite: GEOG 2200.

This course critically explores various concepts of nature and the ways in which they shape and are shaped by geographic landscapes. Potential topics will include: the socially constructed 'nature of nature, changing views of nature in Western and non-Western thought and the intellectual underpinnings of modern environmentalism. This course will also analyze several culturally produced 'natural' landscapes, including wilderness reserves, rural countryside, suburban yards, zoos and city parks.

3332 Geography of Transportation (Group A)

3 credit hours
Prerequisite: GEOG 2200.

This course provides an overview of the geographic study of transportation. Topics for consideration include: the causes of movement, measurement of distance, the cost of transportation and its influence in economic geography, the analysis of transportation networks, and the modeling of transportation flows. All transport modes are considered but emphasis is placed on land and air transport.

3333 Biogeography (Group B)

3 credit hours
Prerequisite: GEOG 2100.

A study of the spatial and temporal distribution of plants and animals on Earth. Local to global scale patterns of species distribution in terrestrial and marine environments are explained by examining physical controls, ecological principles, and human impacts. Species changes over space and time are described by covering evolution, migration, succession, and extinction. Examples are drawn from Atlantic Canada where possible.

3340 Geography of Nova Scotia (Group D)

3 credit hours
Prerequisite: at least thirty (30) credit hours.

This course explores the geographical diversity of the province, with particular emphasis on interrelationships between physical and human patterns. A section on the physical environment is followed by a discussion of settlement, cultural patterns, and economic development. Current issues of resource development, industrial reorganization, environmental management, and land use planning are addressed.

3343 Weather and Climate (Group B)

3 credit hours
Prerequisite: GEOG 2100.

An investigation of weather and climate systems on Earth across a wide range of spatial and temporal scales. Topics include: the atmosphere, energy balances, microclimates, regional weather, and global climate processes. The focus is on describing and explaining current weather and climates, but past Earth climates will also be examined.

3353 Nature and Development of Physical Geography (Group B)

3 credit hours

Prerequisite: GEOG 2100.

This course surveys the important ideas and advances in the growth of the discipline of physical geography. Developments and major contributors to the fields of geomorphology, atmospheric studies, biogeography, and ocean studies will be considered. The objective of the course is to understand the current framework and nature of physical geography by investigating the historical context of the subject.

3356 Remote Sensing of the Environment (Group C)

3 credit hours

Prerequisite: GEOG 2316

This course is a study of the acquisition, storage, manipulation, analysis, interpretation, and applications of remotely sensed digital imagery. A range of sensors and spatial scales of imagery are introduced. Image interpretation and processing skills are developed using current image processing software.

Classes 2 hrs. and lab 2 hrs. a week.

3360 Geography of Japan (Group D)

3 credit hours

Prerequisite: at least thirty (30) credit hours.

This course stresses relationships between Japan's diverse physical environments and patterns of human occupation and land use. A section on the physical setting is followed by discussion of rural settlement, cultural patterns, urban development, and industrial geography. Current issues of land use planning and environmental management are addressed.

3366 Field Techniques and Research Methods (Group C)

3 credit hours

Prerequisite: GEOG 2100 or 2200.

Addresses questions in the design and conduct of geographic research, including field techniques. Topics include: formulating a research plan, developing hypotheses, locating and measuring field phenomena, sampling designs, levelling techniques, questionnaires, and presenting results. Students will be expected to attend sessions in the field outside regular classes and labs.

Classes 2 hrs. and lab 2 hrs. a week.

3380 Geography of China (Group D)

3 credit hours

Prerequisite: at least thirty (30) credit hours.

An analysis of the physical, social, cultural and economic characteristics and problems of the region. Consideration will be given to external and internal relationships of the region and to the problems of and prospects for the region's economic development.

3386 Concepts in Geographical Information Systems (GIS) (Group C)

3 credit hours

Prerequisite: GEOG 2336.

This course provides an introduction to geographic information systems (GIS). Consideration is given to GIS data structure, data input, quality, storage and editing, GIS analysis functions and an introduction to the implementation of a GIS. Although the course has a strong technical component, the central underlying theme is using GIS to improve decision making in natural, human and management sciences.

Classes 2 hrs. and lab 2 hrs. a week.

3454 Bay of Fundy: Environments and Issues (Group D)

3 credit hours

Prerequisite: GEOG 1100 or 1200 and at least thirty (30) credit hours..

This interdisciplinary course examines physical, biological and human environments, processes and issues in the Bay of Fundy region from both a historical and a contemporary view. Topics include physical and biological processes such as tides and biological productivity, ecosystems such as tidal flats and salt marshes, settlement patterns, and resource use. Emphasis is placed on current issues and solutions.

4394 Geography of Maritime Transportation (Group A)

3 credit hours

Prerequisite: GEOG 3332.

The course considers the spatial dynamics of world maritime transport. Topics include: theories of trade, shipping's contributions to world trade, the world merchant marine, changing time-space relationships with increasing ship size and specialization, containerization and intermodality, locational characteristics of ports, hinterland penetration and foreland development, port development and competition.

4406 Seminar in Theoretical Geography (Group D)

3 credit hours

Prerequisite: Registered major or honours students in Geography, or Geology/Geography combined program, with at least 60 university credit hours.

Students will be made familiar with major advances in theoretical and philosophical aspects of geography.

4413 Coastal Geomorphology (Group B) [GEOL 4476]

3 credit hours

Prerequisite: GEOG 3313 [GEOL 3373] or GEOL 2325 [GEOG 2325].

This course discusses both the physical processes that operate in the coastal zone and the resulting landforms. The actions of waves, tides, currents, sea level changes, wind, and humans in the formation of coastal features are considered. Additional topics include the long-term development and classification of coasts.

Classes 2 hrs. and lab 2 hrs. a week. Some field work may be required.

4414 Integrated Coastal Zone Management (Group D)

3 credit hours

Prerequisite: GEOG 2336 and either GEOG 3304 or GEOG 2315.

Spatial approaches to the integrated planning and management of the coastal zone within a sustainable development framework will be discussed and analyzed using case studies from intensively developed coastal zones in Europe, the Mediterranean, Southeast Asia, and North America. Emphasis will be placed on the use of geographical information systems as management and planning tools.

Classes 2 hrs. and 2 hrs. lab or field work a week.

4416 Seminar in Applied Geography (Group D)

3 credit hours

Prerequisite: Registered major or honours students in Geography, or Geology/Geography combined program, with at least 60 university credit hours.

Role of the geographer and geographical studies in fields such as environmental, regional and urban planning; resource management; mapping and surveys; and marketing.

4423 Glacial Geomorphology (Group B) [GEOL 4475]

3 credit hours

Prerequisite: GEOG 3313 [GEOL 3373] or GEOL 2325 [GEOG 2325].

The study of geomorphological processes and landforms in glaciated environments. Emphasis will be placed on descriptions and explanations of glacial processes and glacial landform development. Glacial history will form a minor component of the course.

Classes 2 hrs. and lab 2 hrs. a week.

4424 Natural Resource Management (Group D) [ENVS 4450]

3 credit hours

Prerequisite: GEOG 3304 or ENVS 2300 and one of MATH 1207 or GEOG 3326 or BIOL 2308.

4432 Social Geography of the City (Group A)

3 credit hours

Prerequisite: GEOG 2200.

Examines the location of residential areas in cities, and the differentiation and segregation of those areas by income, occupation, race, ethnic status, and religion. Emphasis is placed on the historical evolution of social patterns, on the link between social areas and the physical fabric of the city, on competition between groups for amenity locations and facilities, and on the conflicts over noxious facilities.

4433 Fluvial Geomorphology (Group B)

3 credit hours

Prerequisite: GEOG 3313 [GEOL 3373] or GEOL 2325 [GEOG 2325].

This course examines processes and landforms associated with rivers. Topics include channel processes and morphology, sedimentology and depositional environments. Case studies of human impacts on river systems are also presented.

Classes 2 hrs. and lab 2 hrs. a week.

GEOG 4434 Watershed Management (Group D)

3 credit hours

Prerequisite: GEOG 3304 and GEOG 2100

This course explores the concept of integrated watershed management. This will include assessments of biophysical freshwater systems, implications for natural resource development and land use on water quality and quantity, as well as institutional arrangements and the role of stakeholder involvement in watershed-scale decision-making. Field trips to local watersheds will be incorporated into the course syllabus.

4439 Urban Historical Geography (Group A)

3 credit hours

Prerequisite: six (6) Group A Geography credit hours at the 2000 or 3000 level.

The geography of the city (its morphology and function) is employed as an indication of the landscape impression produced by various historical periods (conceived as cultures) during the evolution of urban forms in Europe and North America. Examples are taken in historical sequence from Greek to Industrial times.

4442 Urban Planning (Group A)

3 credit hours

Prerequisite: GEOG 2200.

Examines the physical and environmental planning of urban areas, with special reference to current practice in Nova Scotia. Topics include the emergence of modern town planning, the Planning Act, planning process, structure plans, general and partial urban allocation models, municipal plans, zoning, subdivision control, site planning, urban renewal, and new towns. The costs and benefits of planning are appraised.

4443 Natural Hazards (Group B)

3 credit hours

Prerequisite: GEOG 2100 and at least 6 credits hours in GEOG courses at 3000 level or above.

This course considers natural hazards as a part of human-environment relations characterized by changing geographical patterns. Earthquakes, volcanic eruptions, landslides, severe weather, floods, coastal hazards, extraterrestrial body impacts are analyzed in a multi-scale perspective, along with their functional relationships. The human impact of natural hazards is discussed, with an emphasis on environmental perception, public awareness

and action. Possibilities of forecasting are examined, as well as risk assessment and mitigation strategies.

4444 Methods of Environmental and Natural Resource Analysis (Group D) [ENV 4460]

3 credit hours

Prerequisite: GEOG 3304 or ENVS 2300 and one of MATH 1207 or GEOG 3326 or BIOL 2308 and either MATH 1210 or CPSC 1226.

4449 Tourist Geographies (Group A)

3 credit hours

Prerequisite: GEOG 3319.

The course is concerned with the meanings of tourist places. "Meaning" refers to the symbolic, historic, or natural significance of the geographies involved in attracting people to some places rather than others. The course examples range from theme parks like Disneyland to world heritage sites like Lunenburg. As many examples as possible are taken from Nova Scotia areas.

4452 The Geography of Urban Transportation (Group A)

3 credit hours

Prerequisite: GEOG 2312 or GEOG 3332.

This course focuses on patterns and processes of movement within cities. Topics for consideration include: the role of transportation in shaping urban form, transportation problems in cities today, the urban transportation planning process, patterns of public transit and automobile use, environmental impacts of urban transportation, the communications-transportation trade-off.

GEOG 4459 The Power of Maps: A Social History of Cartography (Group A)

3 credit hours

Prerequisite: GEOG 2200 or at least sixty (60) credit hours.

Maps offer useful windows on their contemporary worlds, telling us a great deal about the technical proficiencies, economic structures, social relations, political objectives and overarching belief systems of the societies that call them forth. This course critically examines the map-society relationship in selected historical contexts as well as in our contemporary society. Possible topics for discussion will include: mapping in the Ancient world, Medieval cosmological cartography, imperial/colonial cartography, cartographies of indigenous resistance, maps and national identity, cartography and literature, and mapping in the digital age.

4465 Advanced Sedimentology (Group B) [GEOL 4465]

3 credit hours

Prerequisite: GEOL 2325 [GEOG 2325] and GEOL 3326.

4496 Applications in Geographical Information Systems (Group C)

3 credit hours

Prerequisite: GEOG 3386.

This course allows students to develop further their understanding of GIS and its applications. The course allows students to further develop their understanding of GIS and its applications. This course is project-oriented, focusing on the use of geographic information systems (GIS) to address practical problems in areas such as resource management, marketing, regional planning, natural hazards and geomorphology. Students will undertake a major research project using various GIS analytical functions, and develop skills relating to data creation, manipulation, quality assessment and presentation.

Classes 2 hrs. and lab 2 hrs. a week.

4526 Honours Research Project (Group D)

6 credit hours

Prerequisite: Honours standing in geography.

Honours students will be assigned to a research advisor who will guide the student in the formulation of the research proposal, the methodology to be followed during the course of the research and in the analysis and write-up of the research findings.

4800 – 4825 Selected Topics in Geography

6 credit hours

Prerequisite: Vary depending on the nature of the Selected Topic

These courses will cover topics not represented by other courses in Geography. The subject matter will be selected by the instructor. If appropriate to the material, a class and lab mode of presentation may be used instead of classes alone.

4826 – 4849 Selected Topics in Geography

3 credit hours

Prerequisite: Vary depending on the nature of the Selected Topic

These courses will cover topics not represented by other courses in Geography. The subject matter will be selected by the instructor. If appropriate to the material, a class and lab mode of presentation may be used instead of classes alone.

4850 – 4875 Directed Study (Group D)

3 credit hours

4876 - 4899 Directed Study (Group D)

6 credit hours