

GEOGRAPHY

Department Website: <https://smu.ca/academics/departments/geography.html>

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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
- 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. 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.
3. Majors and honours students should normally complete Geospatial Concepts (GEOG 2306) and Inquiry and Explanation in Geography (GEOG 2356) before the end of their second year or, in the case of part-time students, before proceeding to other upper level courses.
4. All declared majors and honours students are assigned a faculty advisor with whom they should consult each year to review their progress and course selection.
5. The Department of Geography and Environmental Studies recognizes the importance of developing student's 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. The Department asks that, in written work submitted for grading, students follow the Style Guide for Geographers available through the Department web site or from the Department Secretary.
6. 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.

Group A

Code	Title	Credit Hours
GEOG 2312	Urban Geography	3
GEOG 2332	Global Cities	3
GEOG 2341	Economic Geography	3
GEOG 2349	Cultural Geography	3
GEOG 3302	The Built Environment	3
GEOG 3311	Rural Geography	3
GEOG 3321	Spatial Processes of Economic Globalization	3
GEOG 3329	Geographical Perspectives on Nature	3
GEOG 3351	Demography and Migration	3
GEOG 4412	Urban History and Preservation	3
GEOG 4431	Community and Regional Development	3
GEOG 4432	Social Geography of the City	3
GEOG 4442	Urban Planning	3
GEOG 4449	Tourist Geographies	3
GEOG 4459	The Power of Maps: A Social History of Cartography	3

Group B

Code	Title	Credit Hours
GEOG 2313/ GEOL 2373	Geomorphology	3
GEOG/GEOL 2325	Sedimentology	3
GEOG 2333	Biogeography	3
GEOG 2343	Weather and Climate	3
GEOG 3213	Applied Geomorphology	3
GEOG 3433	Fluvial Geomorphology	3
GEOG 4413/ GEOL 4476	Coastal Geomorphology	3
GEOG 4443	Natural Hazards	3
GEOG 4423/ GEOL 4475	Glaciers and Glaciation	3
GEOG/GEOL 4465	Advanced Sedimentology	3

Group C

Code	Title	Credit Hours
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
GEOG 3326	Statistical Methods in Geography	3
GEOG 3356	Remote Sensing of the Environment	3
GEOG 3386	Concepts in Geographical Information Systems (GIS) Analysis	3
GEOG 3416	Qualitative Research Methods in Geography	3

GEOG 4444/ ENVS 4460	Environmental Pattern Analysis	3
GEOG 4496	Applications in Geographical Information Systems	3

Group D

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2310	Geography of Canada	3
GEOG 2315	The Oceans	3
GEOG 2390/ IRST 2391	Geography of Ireland	3
GEOG 3004	Geography and Environmental Studies in Practice	3
GEOG 3100	Geography Field School	3
GEOG 3150	Geography Behind the Headlines	3
GEOG 3304	Environmental Management	3
GEOG 3320	Geography of the North	3
GEOG/ACST 3340	Geography of Nova Scotia	3
GEOG 3350	Geography of Sub-Saharan Africa	3
GEOG 3380	Climate Change: Impacts, Vulnerability and Adaptation	3
GEOG 3454	Bay of Fundy: Environments and Issues	3
GEOG 4150	Geographical Perspectives on Asia-Pacific Development	3
GEOG 4406	Capstone Seminar in Geography	3
GEOG 4424/ ENVS 4450	Natural Resource Management	3
GEOG 4426	Ecosystem and Natural Area Management	3
GEOG 4434	Watershed Management	3
GEOG 4526	Honours Thesis	6
4850-4899 Directed Study		3

Programs- Bachelor of Arts

The Bachelor of Arts (BA) is a well-established, foundational degree and requires the requirements listed below alongside general graduation requirements (<https://smu-ca-public.courseleaf.com/undergraduate/faculties/faculty-arts/bachelor-arts/>).

Major in Geography

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.

Major in Bachelor of Arts Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
Select three credits of the following:		3
GEOG 3326	Statistical Methods in Geography	
GEOG 3356	Remote Sensing of the Environment	
GEOG 3386	Concepts in Geographical Information Systems (GIS) Analysis	
GEOG 3416	Qualitative Research Methods in Geography	
Select six other credit hours in GEOG at the 4000-level		6
Select 21 other credit hours in GEOG at any level		21
Total Credit Hours		45

Note: The twenty-seven (27) credit hours in GEOG defined in (v) and (vi) may be taken from any group (A, B, C, or D (p. 1))

After the student attains forty-eight (48) credit hours in GEOG, only Group A, C, and D courses (p. 1) count towards the Faculty of Arts regulation for Major and Honours students to complete "sixty-six (66) credit-hours in Arts subjects at the 2000-level or above". Additional Group B courses (p. 1) could be taken as electives.

Major in a Bachelor of Arts Degree 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 (<https://smu-ca-public.courseleaf.com/undergraduate/programs/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.

Concentration in Bachelor of Arts Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
or GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	
Select 12 other credit hours in GEOG		12
Total Credit Hours		24

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 the honours program.

- 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.
- Each year students should seek advice on their program of courses from the Honours Program Coordinator.
- Students admitted to the program are responsible for finding a member of the Department to act as their Honours supervisor.
- Complete details regarding the Honours Thesis are contained in *Regulations for the Honours Thesis* (Geography 4526) available from the Departmental secretary.
- 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.

Honours in a Bachelor of Arts Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
GEOG 3326 or GEOG 3416	Statistical Methods in Geography Qualitative Research Methods in Geography	3
GEOG 3356 or GEOG 3386	Remote Sensing of the Environment Concepts in Geographical Information Systems (GIS) Analysis	3
GEOG 3004 or GEOG 4406	Geography and Environmental Studies in Practice Capstone Seminar in Geography	3
GEOG 4526	Honours Thesis	3,6
Select 39 other GEOG credit hours from any group of which at least six credit hours must be at the 4000-level		39
Total Credit Hours		66-69

Minor in a Bachelor of Arts or Bachelor of Commerce Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356 or GEOG 2386	Inquiry and Explanation in Geography Introduction to Mapping and Geographical Information Systems (GIS)	3
Select 12 other credit hours in GEOG		12
Total Credit Hours		24

Minor in Geography in a Bachelor of Environmental Studies Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
GEOG 3356 or GEOG 3386	Remote Sensing of the Environment Concepts in Geographical Information Systems (GIS) Analysis	3

Select six other credit hours in GEOG, which may only be counted as approved B.E.S. electives or free electives in fulfillment of the B.E.S. degree requirements

Total Credit Hours 24

In addition to the programs cited above, information on graduate courses, may be found in the Graduate Academic Calendar (<https://smu-ca-public.courseleaf.com/graduate/>).

Programs- Bachelor of Science

The Bachelor of Science (B.Sc.) is a well-established, foundational degree and requires the requirements listed below alongside general graduation requirements (<https://smu-ca-public.courseleaf.com/undergraduate/faculties/faculty-science/bachelor-science/>).

Major in Geography

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 Science must obtain a minimum GPA of 2.2 in all of those courses used to satisfy the major subject area.

Major in Bachelor of Science Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
Select three credits of the following:		3
GEOG 3326	Statistical Methods in Geography	
GEOG 3356	Remote Sensing of the Environment	
GEOG 3386	Concepts in Geographical Information Systems (GIS) Analysis	
GEOG 3416	Qualitative Research Methods in Geography	

Select 18 other credit hours from Group B, of which at least three credit hours must be at the 3000 level or above	18
GEOG 4406 Capstone Seminar in Geography	3
Select nine other credit hours in GEOG	9
Total Credit Hours	48

¹ In addition to Capstone Seminar in Geography (GEOG 4406)

In addition to 4406, students must complete six (6) of the forty-eight (48) credit hours at the 4000-level in GEOG Group B, C, or D (p. 1).

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.

Geology/Geography Combined Programs

Requirements for the Major and honours Geology/Geography Combined Programs are found in the Geology (<https://smu-ca-public.courseleaf.com/undergraduate/programs/geology/>) section of the calendar.

Double Major in Geography and a Science other than Geology in a Bachelor of Science Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
Select three credits of the following:		3
GEOG 3326	Statistical Methods in Geography	
GEOG 3356	Remote Sensing of the Environment	
GEOG 3386	Concepts in Geographical Information Systems (GIS) Analysis	
GEOG 3416	Qualitative Research Methods in Geography	
Select 12 credit hours from GEOG Group B courses, of which at least three credit hours must be at the 3000-level or above		12
Select three other credit hours at the 4000-level in GEOG Group B or C		3
3 other credit hours at the 4000-level in GEOG Group B, C or D		3
Total Credit Hours		36

Note: After the student has attained the required thirty-six (36) credit hours in GEOG, any additional GEOG credits would be taken as free electives in the Faculty of Science.

Concentration in Bachelor of Science Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3

GEOG 2356	Inquiry and Explanation in Geography	3
or GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	
Select three credits of the following:		3
GEOG 2313	Geomorphology	
GEOG 2333	Biogeography	
GEOG 2343	Weather and Climate	
Select nine credit hours in GEOG from Group B or C		9
Select six other credit hours in GEOG		6
Total Credit Hours		30

Honours Program

- 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 the honours program.
- 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.
- Each year students should seek advice on their program of courses from the Honours Program Coordinator.
- Students admitted to the program are responsible for finding a member of the Department to act as their Honours supervisor.
- Complete details regarding the Honours Thesis are contained in *Regulations for the Honours Thesis* (Geography 4526) available from the Departmental secretary.
- 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.

Honours in a Bachelor of Science Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
GEOG 3326	Statistical Methods in Geography	3
or GEOG 3416	Qualitative Research Methods in Geography	
GEOG 3356	Remote Sensing of the Environment	3
or GEOG 3386	Concepts in Geographical Information Systems (GIS) Analysis	
Select three credit hours in GEOG from Group B courses at the 4000-level		3
Select 15 other credit hours from Group B courses		15
GEOG 3004	Geography and Environmental Studies in Practice	3
GEOG 4406	Capstone Seminar in Geography	3
GEOG 4526	Honours Thesis	6
Select three other credit hours in GEOG at the 4000-level		3

Select 18 other credit hours in GEOG	18
Total Credit Hours	72

Minor in a Bachelor of Science Degree

Code	Title	Credit Hours
GEOG 1100	Global Perspectives on Land and Life	3
GEOG 1200	People, Place and Environment	3
GEOG 2306	Geospatial Concepts	3
GEOG 2356	Inquiry and Explanation in Geography	3
or GEOG 2386	Introduction to Mapping and Geographical Information Systems (GIS)	3
Select three credits of the following:		3
GEOG 2313	Geomorphology	
GEOG 2333	Biogeography	
GEOG 2343	Weather and Climate	
Select nine other credit hours from Group B or C courses		9
Select six other credit hours in GEOG		6
Total Credit Hours		30

In addition to the programs cited above, information on graduate courses, may be found in the Graduate Academic Calendar (<https://smu-ca-public.courseleaf.com/graduate/>).