# Master of Science Geography Specialization in Science, Society and Policy

The objectives of the Department are to foster awareness of the field of Geography, and to add to the body of geographic knowledge and methodology through teaching and research. The Department also endeavors to prepare specialized teachers and researchers to meet the demands of the teaching profession and of various public and private agencies. The Department of Geography offers a master of arts (with thesis), a master of science (with thesis), and a PhD in geography. In certain cases, students may be admitted to the master’s in geography on a part-time basis.**

The MA in Geography and MSc in Geography are two programs participating in the collaborative program in Environmental Sustainability as well as in the collaborative program in Science, Society and Policy (at the master’s level only). The Department participates in a collaborative program in Canadian Studies at the PhD level. For more information on this program, see “Admission Requirements.”

The objective of the collaborative program in Science, Society and Policy is to provide students with the knowledge and skills needed to evaluate the challenges confronting decision-making at the interface of science and policy. Students will have an opportunity to explore how evidence is used in decision-making, how current policies shape the scientific enterprise, and how emerging technologies interact with society.

The programs are governed by the general regulations (http://www.grad.ottawa.ca/Default.aspx?tabid=1807) in effect for graduate studies.

**Part-time students must normally complete course requirements, except the thesis, within a period of not more than 24 months. For more information, consult the Department.

## Admission Requirements

For the most accurate and up to date information on application deadlines, language tests and other admission requirements, please visit the specific requirements (http://www.uottawa.ca/graduate-studies/programs-admission/apply/specific-requirements) webpage.

To be admissible to the master’s program, the student must hold an BA with honours in geography or in a related discipline with an academic record indicating at least (B+) or the equivalent. Candidates whose bachelor’s degree with honours (or the equivalent) is in an area other than geography may be admitted for a qualifying period, during which they must take selected courses required in the department’s BA with honours program.

## Additional Coursework

The Admissions Committee may, depending on the candidates’ background, require them to successfully complete additional courses, including language courses, beyond the basic MA degree requirements.

## Collaborative Programs

The Department of Geography is one of the units participating in the collaborative programs in Canadian Studies (PhD level only), in Science, Society and Policy (master’s level only) and in Environmental Sustainability (master’s level only). Students should indicate in their initial application for admission that they wish to be accepted into one of the collaborative programs.

Admission to the collaborative program in Science, Society and Policy is governed by the general regulations in effect for graduate studies.

Applications for admission may be submitted at the time of application to a participating master’s program (i.e. primary program) at the University of Ottawa or upon acceptance into a participating master’s program at the University of Ottawa.

To be accepted into the collaborative program candidates must:

- Be admitted to one of the programs participating in the collaborative program;
- Submit a collaborative program enrollment form (http://issp.ottawa.ca/en/education/SSPcollaborative);
- Submit a 1-page cover letter (http://issp.ottawa.ca/en/education/SSPcollaborative) (500 words maximum) outlining their interest in the collaborative program and how their research topic or area aligns with the scope of inquiry at the Institute for Science, Society and Policy;

In the case of a thesis-based program, the collaborative enrollment form must be signed by the student’s thesis supervisor, as consent to participate in the collaborative program.

Note that some of the primary programs have a co-op option. Students in the collaborative program may also have access to the co-op option provided that space is available, that they meet the co-op admission requirements, and that required courses do not conflict with the schedule of co-op placements.

## Additional Information

For additional information, refer to the Department of Geography (http://www.geography.ottawa.ca/PDF/Form_geography.pdf)’s website.

## Program Requirements

### MSc with Thesis

**Compulsory Courses:**

9 course units from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>GEG 5310</td>
<td>Selected Topics in Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEG 5311</td>
<td>Environmental Change in Cold Regions</td>
<td>3</td>
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<tr>
<td>GEG 5707</td>
<td>Milieux nordiques</td>
<td>3</td>
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<tr>
<td>GEG 6101</td>
<td>Data Analysis and Modelling</td>
<td>3</td>
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<tr>
<td>GEG 6102</td>
<td>Advanced Geomatics</td>
<td>3</td>
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<tr>
<td>GEG 6103</td>
<td>Spatial Data Analysis</td>
<td>3</td>
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<tr>
<td>GEG 7910</td>
<td>Directed Readings</td>
<td>3</td>
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</table>

**Second Language Proficiency Test**

**Thesis Project:**

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<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>GEG 7996</td>
<td>Preparation and Presentation of the MSc Thesis Project</td>
<td>3</td>
</tr>
</tbody>
</table>

**Thesis:**
Collaborative Program in Science, Society and Policy

The requirements of the MSc in Geography and the collaborative program must be met. The units completed for the specialization count also towards the degree in Geography.

- Satisfactory completion of the core course (ISP 5101 or ISP 5501, 3 units);
- Satisfactory completion of the thesis (GEG 7999).

For more information, please consult the web page for the Science, Society and Policy (https://www.uottawa.ca/graduate-studies/future-students/programs/science-society-and-policy-collaborative) program.

Fast-track from Master's to PhD

Students enrolled in the MSc program may be allowed to transfer to the PhD program without being required to write a master’s thesis. For additional information, please consult the “Admission Requirements” section of the PhD program.

Duration of Program

Students are expected to complete all requirements within two years. The thesis must be submitted within four years of the date of initial enrollment in the program.

Minimum Standards

The passing grade in all courses is C+. A student who has incurred two failures is withdrawn from the program.

Research

Research Fields & Facilities

Located in the heart of Canada’s capital, a few steps away from Parliament Hill, the University of Ottawa is among Canada’s top 10 research universities.

Courses

- **GEG 7999 Master’s Thesis**
  0 Unit

  Note(s)

  1. Three course units may be replaced by three other units approved by the Department of Geography. Recommended courses from other departments include GEO 5139, GEO 5142 and GEO 5143.

  2. In the course of their studies, students are required to demonstrate at least a passive knowledge of the second official language of Canada. Students must write the second language proficiency test in the fall or winter term of their first year of graduate studies. Passing this test satisfies the language requirement for the master’s and PhD degrees. This test consists of translating a text (600-1000 words) chosen by the supervisor, in the research field of the candidate. The text chosen will not be made known in advance to the candidate. A French-English dictionary will be permitted. This test should precede the MA Thesis Proposal Presentation of the PhD Comprehensive Examination. A candidate who fails the test will have to successfully complete a course at the Official Languages and Bilingualism Institute approved by the department. This requirement applies only to students whose mother tongue is either English or French.

  uOttawa focuses research strengths and efforts in four Strategic Areas of Development in Research (SADRs):

  - Canada and the World
  - Health
  - e-Society
  - Molecular and Environmental Sciences

  With cutting-edge research, our graduate students, researchers and educators strongly influence national and international priorities.

Research at the Faculty of Arts

The Faculty of Arts is proud of the state of the art research conducted by its professors. In the spirit of showcasing its research to the university community as well as to the general public, the Faculty has created three activities: Dean’s Lecture Series, Treasures of the Library, and Excellence Lectures.

Facilities, Research Centres and Institutes at the Faculty of Arts


For more information, refer to the list of faculty members and their research fields on Uniweb (https://uniweb.uottawa.ca/#!arts/themes).

- **GEG 5105 Selected Topics in Human Geography** (3 units)
  - In-depth examination of a question or topic linked to new trends or research areas in human geography.
  - **Course Component:** Seminar

- **GEG 5109 Place and Social Transformations** (3 units)
  - Interplay between social and spatial transformations and its implications for meanings and representations from global to local scales.
  - **Course Component:** Seminar

- **GEG 5310 Selected Topics in Physical Geography** (3 units)
  - **Course Component:** Seminar

- **GEG 5311 Environmental Change in Cold Regions** (3 units)
  - **Course Component:** Seminar

  - Dynamics of cold environments with particular emphasis on their sensitivity to climate variability and climate change, natural and anthropogenically induced.

- **GEG 5505 Thèmes choisis en géographie humaine** (3 crédits)
  - **Volet : Séminaire**

- **GEG 5510 Espaces et lieux entre société et culture** (3 crédits)
  - **Volet : Séminaire**

- **GEG 5707 Milieux nordiques** (3 crédits)
  - **Volet : Séminaire**

For more information, please consult the web page for the Science, Society and Policy (https://www.uottawa.ca/graduate-studies/future-students/programs/science-society-and-policy-collaborative) program.
GEG 5710 Thèmes choisis en géographie physique (3 crédits)
Volet : Séminaire

GEG 5914 Problèmes géographiques du Canada de l’Est / Geographical Problems of Eastern Canada (2 crédits / 2 units)
Volet / Course Component: Séminaire / Seminar

GEG 5970 Lectures dirigées / Directed Readings I (3 crédits / 3 units)
Volet / Course Component: Recherche / Research

GEG 5973 Élaboration du projet de thèse (3 crédits / 3 units)
Volet / Course Component: Recherche / Research

GEG 6101 Data Analysis and Modelling (3 units)
Techniques of analysis of empirical data: quantitative, semi-quantitative and qualitative. Multivariate and time-series data analysis.
Course Component: Seminar

GEG 6102 Advanced Geomatics (3 units)
Concepts and themes in advanced geomatics: geographical information systems, computer cartography and remote sensing.
Course Component: Seminar

GEG 6103 Spatial Data Analysis (3 units)
Visualisation and analysis of spatial data: point-pattern analysis, spatial interpolation and estimation, spatial autocorrelation. Analysis of spatial interaction and spatio-temporal dynamics.
Course Component: Seminar

GEG 6501 Analyse de données et modélisation (3 crédits)
Modes de traitement appropriés à différents types de données empiriques : quantitatives, semi-quantitatives et qualitatives. Examen des méthodes d’analyse multivariées et temporelles.
Volet : Séminaire

GEG 6502 Géomatique avancée (3 crédits)
Concepts et thèmes en géomatique avancée : systèmes d’information géographique, cartographie digitale et télédétection.
Volet : Séminaire

GEG 6503 Analyse des données spatiales (3 crédits)
Visualisation et analyse de données spatiales : analyse de configurations spatiales, interpolation et estimation spatiales, autocorrélation spatiale. Analyse des interactions dans l’espace et de la dynamique spatiotemporelle.
Volet : Séminaire

GEG 7906 Recherche dirigée / Directed Research (6 crédits / 6 units)
Recherche dirigée pendant une session, évaluée par trois membres de la Faculté des études supérieures et postdoctorales. L’inscription à temps plein est obligatoire. La note donnée sera S (satisfaisant) ou NS (non satisfaisant). N.B. Inscription limitée aux étudiants désirant transférer de la maîtrise au doctorat. / One session of directed research, evaluated by three members of the Faculty of Graduate and Postdoctoral Studies. The student must be enrolled full-time for this session. The course will be graded S (satisfactory) / NS (Not satisfactory). NOTE: Restricted to students intending to transfer from master’s to PhD.
Volet / Course Component: Recherche / Research

GEG 7910 Lectures dirigées / Directed Readings (3 crédits / 3 units)
Volet / Course Component: Recherche / Research

GEG 7996 Élaboration et présentation du projet de thèse de maîtrise ès sciences / Preparation and Presentation of the MSc Thesis Project (3 crédits / 3 units)
Le projet de recherche doit normalement s’inscrire dans un champ d’études reconnu par le CRSHC. / The research project must normally be in a research field recognized by SSRHC.
Volet / Course Component: Recherche / Research

GEG 7998 Élaboration et présentation du projet de thèse de maîtrise ès arts / Preparation and Presentation of the M.A. Thesis Project (3 crédits / 3 units)
Le projet de recherche doit normalement s’inscrire dans un champ d’études reconnu par le CRSNG. / The research project must normally be in a research field recognized by NSERC.
Volet / Course Component: Recherche / Research

GEG 8900 Lectures dirigées / Directed Readings (3 crédits / 3 units)
Volet / Course Component: Recherche / Research

GEG 9001 Élaboration du projet de thèse de doctorat / Preparation of Ph.D. Thesis Project (6 crédits / 6 units)
Volet / Course Component: Recherche / Research

GEG 9998 Examen de synthèse / Comprehensive Examination
Volet / Course Component: Recherche / Research

GEG 9999 Thèse de doctorat / Ph.D. Thesis Research
Volet / Course Component: Recherche / Research

ISP 5101 Decision at the Interface of Science and Policy (3 units)
This course explores a number of critical issues in the design and implementation of science (or, more generally, evidence)-based policy. Topics will include: the nature of scientific evidence; who has standing in the provisioning of scientific evidence; the science and non-science of risk assessment; ethical dimensions of policy design and implementation; the role of science in policy design and implementation; the policy making process; and science policy performance evaluation.
Course Component: Lecture

ISP 5102 Science and Technology Governance and Communication (3 units)
This course explores a number of critical issues in the governance of science and technology (S&T) in democratic societies, with particular emphasis on the Canadian context. Topics will include: the history of S&T governance and communication in both Canada and abroad; an overview of the Canadian S&T policy and regulatory landscape; the role of government, the private sector and civil society in S&T governance; policy and regulatory experiments in fostering innovation (and the success thereof); the evolution of public S&T communication strategies and governance of emerging technologies.
Course Component: Lecture

ISP 5103 Capstone Seminar in Science, Society and Policy (3 units)
Involves partnering with organization(s) working on an issue relating to science, society and policy. In consultation with a member of the organization, students analyze the issue and complete a written report, either singly or in interdisciplinary teams, under the direction of the seminar professor who is responsible for evaluating the report.
Course Component: Lecture
ISP 5501 Prise de décision à l'interface de la science et des politiques (3 crédits)
Ce cours approfondit un certain nombre d’enjeux critiques liés à la conception et à la mise en œuvre de politiques scientifiques (ou, de façon plus générale, fondées sur des preuves). Les sujets abordés incluent : la nature et la preuve scientifique; qui a qualité pour fournir des preuves scientifiques; le côté scientifique et le côté non scientifique de l’évaluation des risques; les dimensions éthiques de la conception et de la mise en œuvre des politiques publiques; le rôle de la science dans la conception et la mise en œuvre des politiques publiques; le processus d’élaboration des politiques publiques; et l’évaluation du rendement des politiques publiques en matière de sciences.
Volet : Cours magistral

ISP 5502 Gouvernance et communication en science et technologie (3 crédits)
Ce cours approfondit un certain nombre d’enjeux critiques liés à la gouvernance des sciences et de la technologie (S et T) dans les sociétés démocratiques et, en particulier, dans le contexte canadien. Les sujets abordés incluent : l’histoire de la gouvernance et de la communication en sciences et technologie au Canada et à l’étranger; un aperçu du paysage réglementaire et politique canadien ayant trait aux sciences et à la technologie; le rôle du gouvernement, du secteur privé et de la société civile dans la gouvernance des sciences et de la technologie; les expériences relatives aux politiques et à la réglementation menées en vue de favoriser l’innovation (et leur réussite); l’évolution des stratégies de communication publique concernant les sciences et la technologie et la gouvernance des nouvelles technologies.
Volet : Cours magistral

ISP 5503 Séminaire d’intégration en science, société et politique publique (3 crédits)
Involves partnering with organization(s) working on an issue relating to science, society and policy. In consultation with a member of the organization, students analyze the issue and complete a written report, either singly or in interdisciplinary teams, under the direction of the seminar professor who is responsible for evaluating the report.
Volet : Cours magistral