Climate Change (Collaborative Program)

This section presents the requirements for programs in:

- M.A. Anthropology with Collaborative Specialization in Climate Change
- M. Architecture 2-year stream with Collaborative Specialization in Climate Change
- M. Architecture 3-year stream with Collaborative Specialization in Climate Change
- M.A.Sc. Civil Engineering with Collaborative Specialization in Climate Change
- M.Eng. Civil Engineering with Collaborative Specialization in Climate Change
- M.A. Communication with Collaborative Specialization in Climate Change
- M.A. Economics with Collaborative Specialization in Climate Change
- M.A. English with Collaborative Specialization in Climate Change
- M.A. Geography with Collaborative Specialization in Climate Change
- M.Sc. Geography with Collaborative Specialization in Climate Change
- M.A. History with Collaborative Specialization in Climate Change
- M.A. Migration and Diaspora Studies with Collaborative Specialization in Climate Change
- M.A. Psychology with Collaborative Specialization in Climate Change
- M.A. Sociology with Collaborative Specialization in Climate Change
- M.A.Sc. Aerospace Engineering with Collaborative Specialization in Climate Change
- M.A.Sc. Electrical and Computer Engineering with Collaborative Specialization in Climate Change
- M.A.Sc. Environmental Engineering with Collaborative Specialization in Climate Change
- M.A.Sc. Materials Engineering with Collaborative Specialization in Climate Change
- M.A.Sc. Mechanical Engineering with Collaborative Specialization in Climate Change
- M.B.A. with Collaborative Specialization in Climate Change
- M.Eng. Electrical and Computer Engineering with Collaborative Specialization in Climate Change
- M.Eng. Environmental Engineering with Collaborative Specialization in Climate Change
- M.A. Political Economy with Collaborative Specialization in Climate Change
- M.P.P. Sustainable Energy and the Environment with Collaborative Specialization in Climate Change
- M.Eng. Sustainable Energy with Collaborative Specialization in Climate Change
- M.Sc. Management with Collaborative Specialization in Climate Change
- M.Eng. Electrical and Computer Engineering with Collaborative Specialization in Climate Change
- M.Eng. Environmental Engineering with Collaborative Specialization in Climate Change
- M.A. Political Economy with Collaborative Specialization in Climate Change
- M.P.P. Sustainable Energy and the Environment with Collaborative Specialization in Climate Change
- M.Eng. Sustainable Energy with Collaborative Specialization in Climate Change

Program Requirements

M.A. Anthropology with Collaborative Specialization in Climate Change (5.0 credits)

Requirements - Thesis pathway:

1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit in:
   - ANTH 5401 [0.5] Theory in Anthropology
   - ANTH 5402 [0.5] Research in Anthropology
4. 1.0 credit in approved electives, chosen in consultation with the student's advisor
5. 2.0 credits in:
   - ANTH 5909 [2.0] M.A. Thesis (in the specialization)

Total Credits 5.0

Requirements - Research essay pathway:

1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit in:
   - ANTH 5401 [0.5] Theory in Anthropology
   - ANTH 5402 [0.5] Research in Anthropology
4. 2.0 credit in approved electives, chosen in consultation with the student's advisor
5. 1.0 credit in:
   - ANTH 5908 [1.0] M.A. Research Essay (in the specialization)

Total Credits 5.0

Requirements - Coursework pathway:

1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit in:
   - ANTH 5401 [0.5] Theory in Anthropology
   - ANTH 5402 [0.5] Research in Anthropology
4. 0.5 credit in a 5000-level ANTH course with sufficient climate change content, with departmental approval
5. 2.5 credits in approved electives, chosen in consultation with the student's advisor

Total Credits 5.0

M. Architecture 2-year stream with Collaborative Specialization in Climate Change (8.0 credits)

Note: consult the School regarding registration sequence.

Requirements:

1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
### M.A. Communication with Collaborative Specialization in Climate Change (5.0 credits)

**Requirements - Research essay pathway:**
1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.5 credits in:
   - COMS 5101 [1.0] Foundations of Communication Studies

**Total Credits** 5.0

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### M.A. Communication with Collaborative Specialization in Climate Change (5.0 credits)

Requirements - Research essay pathway:
1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.5 credits in:
   - COMS 5101 [1.0] Foundations of Communication Studies

**Total Credits** 5.0
### M.A. Economics with Collaborative Specialization in Climate Change (4.0 credits)

**Requirements - Coursework pathway (4.0 credits)**

1. **1.0 credit in:**
   - **CLIM 5000** [1.0] Climate Collaboration

2. **0.0 credit in:**
   - **CLIM 5800** [0.0] Climate Seminar Series

3. **1.5 credits in:**
   - **ECON 5020** [0.5] Microeconomic Theory
   - **ECON 5021** [0.5] Macroeconomic Theory
   - **ECON 5027** [0.5] Econometrics I

4. **2.0 credits in:**
   - **ECON 5909** [2.0] M.A. Thesis (in the specialization)

5. **0.5 credit from:**
   - the list of optional courses

**Total Credits**: 4.0

### M.A. English with Collaborative Specialization in Climate Change (4.5 credits)

**Requirements - Coursework pathway (4.5 credits)**

1. **1.0 credit in:**
   - **CLIM 5000** [1.0] Climate Collaboration

2. **0.0 credit in:**
   - **CLIM 5800** [0.0] Climate Seminar Series

3. **2.5 credits in **ENGL at the 5000-level (excluding ENGL 5908 and ENGL 5909)

4. **0.5 credit in:**
   - a graduate seminar with sufficient Climate Change content in ENGL or another department, as approved by the Coordinator of the Climate Change Specialization.

5. **0.5 credit in:**
   - **ENGL 5005** [0.5] M.A. Seminar

**Total Credits**: 4.5

### M.A. Geography with Collaborative Specialization in Climate Change (5.5 credits)

**Requirements:**

1. **1.0 credit in:**
   - **CLIM 5000** [1.0] Climate Collaboration

2. **0.0 credit in:**
   - **CLIM 5800** [0.0] Climate Seminar Series

3. **1.0 credit in:**
   - **ENGL at the 5000-level (excluding ENGL 5909)

4. **0.5 credit in:**
   - **ENGL 5005** [0.5] M.A. Seminar

5. **2.0 credits in:**
   - **ENGL 5909** [2.0] M.A. Thesis (in the specialization)

**Total Credits**: 4.5
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIM 5800</td>
<td>Climate Seminar Series</td>
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<tr>
<td>GEOG 5000</td>
<td>Approaches to Geographical Inquiry</td>
<td>0.5</td>
</tr>
<tr>
<td>GEOG 5905</td>
<td>Masters Research Workshop</td>
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</tr>
<tr>
<td>GEOG 5909</td>
<td>M.A. Thesis (in the specialization and including oral examination of the thesis)</td>
<td>2.5</td>
</tr>
<tr>
<td>HIST 5900</td>
<td>Directed Research</td>
<td>0.5</td>
</tr>
<tr>
<td>HIST 5908</td>
<td>M.A. Research Essay (in the specialization)</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Credits: 5.5

**M.A. History**

with Collaborative Specialization in Climate Change (4.5 credits)

Requirements - Research Essay Pathway (4.5 credits):

1. **1.0 credit in:**
   - CLIM 5000 [1.0] Climate Collaboration

2. **0.0 credit in:**
   - CLIM 5800 [0.0] Climate Seminar Series

3. **1.0 credit in:**
   - MGDS 5001 [0.5] MA Core Seminar: Migration and Diaspora Studies
   - MGDS 5003 [0.5] Research Seminar in Migration and Diaspora Studies

4. **1.0 credit from:**
   - Migration and Diaspora Studies electives (see below).
   - Up to 1.0 credit in Migration and Diaspora Studies practicum placements (MGDS 5101) may count toward this requirement.

5. **2.0 credits in:**
   - MGDS 5909 [2.0] M.A. Thesis (in the specialization)

Total Credits: 5.0

Requirements - Thesis Pathway:

1. **1.0 credit in:**
   - CLIM 5000 [1.0] Climate Collaboration

2. **0.0 credit in:**
   - CLIM 5800 [0.0] Climate Seminar Series

3. **1.0 credit in:**
   - MGDS 5001 [0.5] MA Core Seminar: Migration and Diaspora Studies
   - MGDS 5003 [0.5] Research Seminar in Migration and Diaspora Studies

4. **1.0 credit from:**
   - Migration and Diaspora Studies electives (see below).
   - Up to 1.0 credit in Migration and Diaspora Studies practicum placements (MGDS 5101) may count toward this requirement.

5. **2.0 credits in:**
   - MGDS 5909 [2.0] M.A. Thesis (in the specialization)

Total Credits: 5.0
## M.A. Sociology with Collaborative Specialization in Climate Change (5.0 credits)

### Requirements - Thesis pathway:
1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit in:
   - SOCI 5005 [0.5] Recurring Debates in Social Thought
   - SOCI 5809 [0.5] The Logic of the Research Process
4. 2.0 credits in:
   - SOCI 5909 [2.0] M.A. Thesis (in the specialization)

### Total Credits
5.0

## M.A. Sociology with Collaborative Specialization in Climate Change (5.5 credits)

### Requirements - Research essay pathway:
1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit in:
   - SOCI 5005 [0.5] Recurring Debates in Social Thought
   - SOCI 5809 [0.5] The Logic of the Research Process
4. 2.0 credits in:

### Total Credits
5.0

## M.A.Sc. Aerospace Engineering with Collaborative Specialization in Climate Change (5.0 credits)

### Requirements:
1. 1.0 credit in:
   - CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in:
   - CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit in:
   - SOCI 5005 [0.5] Recurring Debates in Social Thought
   - SOCI 5809 [0.5] The Logic of the Research Process
4. Participation in the Mechanical and Aerospace Engineering seminar series
5. 2.5 credits in:
| Program |
|------------------|------------------|------------------|
| **MECH 5909 [2.5]** | M.A.Sc. Thesis (in the specialization) |
| **Total Credits** | **5.0** |

**M.A.Sc. Electrical and Computer Engineering with Collaborative Specialization in Climate Change (5.0 credits)**

Requirements:
1. **1.0 credit in:**
   - CLIM 5000 [1.0] Climate Collaboration
2. **0.0 credit in:**
   - CLIM 5800 [0.0] Climate Seminar Series
3. **1.5 credits in courses offere**d by the OCIMAE
4. Participation in the Mechanical and Aerospace Engineering seminar series
5. **2.5 credits in:**

**Total Credits** **5.0**

**M.A.Sc. Environmental Engineering with Collaborative Specialization in Climate Change (5.0 credits)**

Requirements:
1. **1.0 credit in:**
   - CLIM 5000 [1.0] Climate Collaboration
2. **0.0 credit in:**
   - CLIM 5800 [0.0] Climate Seminar Series
3. **1.5 credits in courses**
   - with at least 0.5 credit from two different areas of study listed below outside the area of EIA, Sustainability and Climate Change
4. **0.0 credit in:**
   - ENVE 5800 [0.0] Master's Seminar (participation in the graduate student seminar series)
5. **2.5 credits in:**

**Total Credits** **5.0**

**M.A.Sc. Materials Engineering with Collaborative Specialization in Climate Change (5.0 credits)**

Requirements:
1. **1.0 credit in:**
   - CLIM 5000 [1.0] Climate Collaboration
2. **0.0 credit in:**
   - CLIM 5800 [0.0] Climate Seminar Series
3. **0.5 credit in:**
   - ELEC 5302 [0.5] Renewable and Distributed Energy Resource Technologies
   - SERG 5001 [0.5] Sustainable Energy Policy for Engineers
   - SERG 5003 [0.5] Energy Evaluation and Assessment Tools
   - SYSC 5005 [0.5] Optimization Theory and Methods
   - SYSC 5104 [0.5] Methodologies For Discrete-Event Modeling And Simulation
4. Participation in the Mechanical and Aerospace Engineering seminar series
5. **2.5 credits in:**

**Total Credits** **5.0**

**M.A.Sc. Mechanical Engineering with Collaborative Specialization in Climate Change (5.0 credits)**

Requirements:
1. **1.0 credit in:**

**Total Credits** **5.0**

**M.B.A. with Collaborative Specialization in Climate Change (8.5 credits)**

Requirements:
1. **1.0 credit in:**
   - CLIM 5000 [1.0] Climate Collaboration
2. **0.0 credit in:**
   - CLIM 5800 [0.0] Climate Seminar Series
3. **0.25 credit in:**
   - BUSI 5108 [0.25] Sustainable Business Development
4. **1.0 credit in** elective specialization courses designated as having sufficient climate change content, within the School of Business or elsewhere, with permission of the School of Business.
5. **4.25 credits in** compulsory core courses
6. **1.0 credit in** elective courses
7. **1.0 credit in:**
   - BUSI 5999 [1.0] Internship
8. **0.0 credit in:**
   - BUSI 5998 [0.0] MBA Skills Workshop

**Total Credits** **8.5**

1 Students with less than two (2) years of professional employment experience must successfully complete BUSI 5999 [1.0] Internship in order to graduate. Students with two or more years work experience may apply for an exemption.
2 Non-credit required skills workshop.

**M.Eng. Electrical and Computer Engineering with Collaborative Specialization in Climate Change (4.5 credits)**

Requirements - project pathway (4.5 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIM 5000</td>
<td>1.0</td>
</tr>
<tr>
<td>CLIM 5800</td>
<td>0.0</td>
</tr>
<tr>
<td>ELEC 5302</td>
<td>0.5</td>
</tr>
<tr>
<td>SERG 5001</td>
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<tr>
<td>SERG 5003</td>
<td>0.5</td>
</tr>
<tr>
<td>SYSC 5005</td>
<td>0.5</td>
</tr>
<tr>
<td>SYSC 5104</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Total Credits** **4.5**
or approved Advanced Topic in the area of climate change
4. 2.5 credits in courses 2.5
5. 0.5 credit in: 0.5
SYSC 5900 [0.5] Systems Engineering Project (in the area of climate change)

| Total Credits | 4.5 |

Requirements - coursework pathway (4.5 credits)
1. 1.0 credit in: 1.0
CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in: 0.0
CLIM 5800 [0.0] Climate Seminar Series
3. 0.5 credit from:
   - ENVE 5105 [0.5] Atmospheric Aerosols
   - ENVE 5200 [0.5] Climate Change and Engineering
   - ENVE 5201 [0.5] Geo-Environmental Engineering
   - ENVE 5205 [0.5] Sludge Treatment and Disposal
   - ENVJ 5908 [0.5] Anaerobic Digestion
   - ENVJ 5212 [0.5] Climate Change Impacts on Water Resources
or approved Special Topics in the area of climate change
4. 2.5 credits in courses, with at least 0.5 credit from two different areas of study listed below outside the area of EIA, Sustainability and Climate Change 2.5

Total Credits 5.0

M.A. Political Economy with Collaborative Specialization in Climate Change (5.0 credits)
Requirements - Thesis pathway (5.0 credits)
1. 1.0 credit in: 1.0
CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in: 0.0
CLIM 5800 [0.0] Climate Seminar Series
3. 1.0 credit from:
   - PECO 5000 [0.5] Theories of Political Economy
   - PECO 5001 [0.5] Methodologies of Political Economy
4. 2.0 credits from:
   - PECO 5909 [2.0] M.A. Thesis (in the specialization, including an oral examination) 2.0
5. 1.0 credit in approved graduate level electives (see Selection of Courses, below) 1.0

Total Credits 5.0

1 Up to one (1.0) credit may be taken at the 4000 (honours undergraduate) level.

M.P.P. Sustainable Energy and the Environment with Collaborative Specialization in Climate Change (6.0 credits)
Requirements - Coursework pathway:
1. 1.0 credit in: 1.0
CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in: 0.0
CLIM 5800 [0.0] Climate Seminar Series

Total Credits 5.0
| 2. 0.0 credit in: | CLIM 5800 [0.0] | Climate Seminar Series |
| 3. 1.5 credits in: | SERG 5002 [0.5] | Sustainable Energy Engineering for Policy Students |
| | SERG 5003 [0.5] | Energy Evaluation and Assessment Tools |
| | SERG 5005 [0.5] | Applied Interdisciplinary Project |
| 4. 0.0 credit in: | SERG 5800 [0.0] | Sustainable Energy Seminar |
| 5. 0.5 credit in: | PADM 5121 [0.5] | Policy Analysis: The Practical Art of Change |
| 6. 0.5 credit in: | PADM 5510 [0.5] | Energy Economics |
| 7. 0.5 credit in: | PADM 5515 [0.5] | Sustainable Energy Policy |
| | or PADM 5615 [0.5] | Politics and Policy of Energy in Canada |
| 8. 2.0 credits from | Sustainable Energy Policy courses listed below or other courses as approved by the MA supervisor | 2.0 |

**Total Credits** 6.0

**Requirements - Research essay pathway:**

1. 1.0 credit in: CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in: CLIM 5800 [0.0] Climate Seminar Series
3. 1.5 credits in: SERG 5002 [0.5] Sustainable Energy Engineering for Policy Students
| SERG 5003 [0.5] | Energy Evaluation and Assessment Tools |
| SERG 5005 [0.5] | Applied Interdisciplinary Project |
4. 0.0 credit in: SERG 5800 [0.0] Sustainable Energy Seminar
5. 0.5 credit in: PADM 5121 [0.5] Policy Analysis: The Practical Art of Change
6. 0.5 credit in: PADM 5510 [0.5] Energy Economics
7. 0.5 credit in: PADM 5515 [0.5] Sustainable Energy Policy |
| or PADM 5615 [0.5] | Politics and Policy of Energy in Canada |
8. 2.0 credits in: SERG 5909 [2.0] MA Sustainable Energy Thesis (in the specialization)

**Total Credits** 6.0

**Notes:**

1. Courses must be appropriate to the student's qualifications and selected with the approval of the student's program supervisor.

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### M.Eng. Sustainable Energy with Collaborative Specialization in Climate Change (5.0 Credits)

**Requirements:**

1. 1.0 credit in: CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in: CLIM 5800 [0.0] Climate Seminar Series
3. 1.5 credits in: SERG 5001 [0.5] Sustainable Energy Policy for Engineers |
| SERG 5003 [0.5] | Energy Evaluation and Assessment Tools |
| SERG 5005 [0.5] | Applied Interdisciplinary Project |
4. 0.0 credit in: SERG 5800 [0.0] Sustainable Energy Seminar
5. 0.5 credit in: Mechanical Engineering Focus: Mechanical Energy Conversion courses (listed below), or Sustainable Energy Policy courses |
| or Electrical Engineering focus: Efficient Electrical Energy Systems courses (listed below) or Sustainable Energy Policy courses |
6. 1.0 credit from Sustainable Energy Policy courses listed below or other courses as approved by the MA supervisor | 1.0 |
8. 1.0 credit in: PADM 5908 [1.0] Research Essay (in the specialization) |

**Total Credits** 6.0

**Requirements - Thesis pathway:**

1. 1.0 credit in: CLIM 5000 [1.0] Climate Collaboration
2. 0.0 credit in: CLIM 5800 [0.0] Climate Seminar Series
3. 1.5 credits in: SERG 5002 [0.5] Sustainable Energy Engineering for Policy Students |
| SERG 5003 [0.5] | Energy Evaluation and Assessment Tools |
| SERG 5005 [0.5] | Applied Interdisciplinary Project |
4. 0.0 credit in: SERG 5800 [0.0] Sustainable Energy Seminar
5. 0.5 credit in: PADM 5121 [0.5] Policy Analysis: The Practical Art of Change |
6. 0.5 credit in: PADM 5510 [0.5] Energy Economics |
7. 0.5 credit in: PADM 5515 [0.5] Sustainable Energy Policy |
| or PADM 5615 [0.5] | Politics and Policy of Energy in Canada |
8. 2.0 credits in: Mechanical Engineering Focus: Mechanical Energy Conversion courses (listed below), or Sustainable Energy Policy courses |
| or Electrical Engineering focus: Efficient Electrical Energy Systems courses (listed below) or Sustainable Energy Policy courses |

**Total Credits** 5.0
**M.Sc. Management**  
with Collaborative Specialization in Climate Change (5.0 credits)

Requirements (5.0 credits):

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
<th>Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.0</td>
<td>CLIM 5000 [1.0] Climate Collaboration</td>
</tr>
<tr>
<td>2.</td>
<td>0.0</td>
<td>CLIM 5800 [0.0] Climate Seminar Series</td>
</tr>
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<td>3.</td>
<td>1.5</td>
<td>BUSI 5980 [0.5] Foundations of Management</td>
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<td>Theory and Research</td>
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<td>BUSI 5981 [0.5] Statistics for Business Research</td>
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<td>BUSI 5982 [0.5] Research Methodology in Business</td>
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<td>4.</td>
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<td>BUSI 5983 [0.5] Qualitative Research Design</td>
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<td>BUSI 5984 [0.5] Quantitative Research Design</td>
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<td>5.</td>
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<td>Completion of the Research Tutorial</td>
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</table>

Total Credits 5.0

**Regulations**

See the General Regulations section of this Calendar and the regulations of the participating unit.

**Admission**

Admission to the collaborative master’s program in Climate Change is available to master’s students who are admitted in one of the participating master’s programs. To apply to one of the participating master’s programs, please visit the Faculty of Graduate and Postdoctoral Affairs Admissions page.

**Climate Change (CLIM) Courses**

**CLIM 5000 [1.0 credit]**  
*Climate Collaboration*

A seminar on the climate crisis from an interdisciplinary perspective. Drawing on a range of disciplinary approaches from the humanities, social sciences, public policy, engineering and natural science, students will engage with the many factors bearing on the climate crisis and how to address it.

**CLIM 5800 [0.0 credit]**  
*Climate Seminar Series*

A series of seminars presented by researchers and practitioners in the area of climate change. To complete this course, a student must attend six seminars.