

Sustainable Energy

This section presents the requirements for programs in:

- Master of Public Policy - Sustainable Energy and the Environment
- Master of Public Policy - Sustainable Energy and the Environment with Collaborative Specialization in Climate Change
- M.A.Sc. Sustainable Energy
- M.Eng. Sustainable Energy
- M.Eng. Sustainable Energy with Collaborative Specialization in Climate Change

Program Requirements

Master of Public Policy - Sustainable Energy and the Environment (5.0 credits)

M.P.P. Sustainable Energy and the Environment - coursework pathway

| | |
|---|--|
| 1. 1.5 credits in: | 1.5 |
| 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 |
| 2. 0.0 credit in: | 0.0 |
| SERG 5800 [0.0] | Sustainable Energy Seminar |
| 3. 0.5 credit in: | 0.5 |
| PADM 5121 [0.5] | Policy Analysis: The Practical Art of Change |
| 4. 0.5 credit in: | 0.5 |
| PADM 5510 [0.5] | Energy Economics |
| 5. 0.5 credit in: | 0.5 |
| PADM 5515 [0.5] | Sustainable Energy Policy |
| or PADM 5615 [0.5] | Politics and Policy of Energy in Canada |
| 6. 2.0 credits from Sustainable Energy Policy courses listed below or other courses as approved by the MA supervisor | 2.0 |
| Total Credits | 5.0 |

Requirements - Research essay pathway:

| | |
|---------------------------|--|
| 1. 1.5 credits in: | 1.5 |
| 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 |
| 2. 0.0 credit in: | 0.0 |
| SERG 5800 [0.0] | Sustainable Energy Seminar |
| 3. 0.5 credit in: | 0.5 |
| PADM 5121 [0.5] | Policy Analysis: The Practical Art of Change |
| 4. 0.5 credit in: | 0.5 |
| PADM 5510 [0.5] | Energy Economics |
| 5. 0.5 credit in: | 0.5 |
| PADM 5515 [0.5] | Sustainable Energy Policy |
| or PADM 5615 [0.5] | Politics and Policy of Energy in Canada |

6. 1.0 credits from Sustainable Energy Policy courses listed below or other courses as approved by the MA supervisor

7. 1.0 credit in: 1.0
PADM 5908 [1.0] Research Essay

Total Credits 5.0

Requirements - Thesis pathway:

| | |
|---------------------------|--|
| 1. 1.5 credits in: | 1.5 |
| 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 |
| 2. 0.0 credit in: | 0.0 |
| SERG 5800 [0.0] | Sustainable Energy Seminar |
| 3. 0.5 credit in: | 0.5 |
| PADM 5121 [0.5] | Policy Analysis: The Practical Art of Change |
| 4. 0.5 credit in: | 0.5 |
| PADM 5510 [0.5] | Energy Economics |
| 5. 0.5 credit in: | 0.5 |
| PADM 5515 [0.5] | Sustainable Energy Policy |
| or PADM 5615 [0.5] | Politics and Policy of Energy in Canada |
| 6. 2.0 credits in: | 2.0 |
| SERG 5909 [2.0] | MA Sustainable Energy Thesis |
| Total Credits | 5.0 |

Notes:

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

Master of Public Policy - 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 |
| 3. 1.5 credits in: | 1.5 |
| 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: | 0.0 |
| SERG 5800 [0.0] | Sustainable Energy Seminar |
| 5. 0.5 credit in: | 0.5 |
| PADM 5121 [0.5] | Policy Analysis: The Practical Art of Change |
| 6. 0.5 credit in: | 0.5 |
| PADM 5510 [0.5] | Energy Economics |
| 7. 0.5 credit in: | 0.5 |
| 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:** 1.0

CLIM 5000 [1.0] Climate Collaboration

2. **0.0 credit in:**

CLIM 5800 [0.0] Climate Seminar Series

3. **1.5 credits in:** 1.5

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:** 0.0

SERG 5800 [0.0] Sustainable Energy Seminar

5. **0.5 credit in:** 0.5

PADM 5121 [0.5] Policy Analysis: The Practical Art of Change

6. **0.5 credit in:** 0.5

PADM 5510 [0.5] Energy Economics

7. **0.5 credit in:** 0.5

PADM 5515 [0.5] Sustainable Energy Policy
or PADM 5615 [0.5] Politics and Policy of Energy in Canada

8. **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:** 1.0

PADM 5908 [1.0] Research Essay (in the specialization)

Total Credits 6.0

Requirements - Thesis pathway:

1. **1.0 credit in:** 1.0

CLIM 5000 [1.0] Climate Collaboration

2. **0.0 credit in:**

CLIM 5800 [0.0] Climate Seminar Series

3. **1.5 credits in:** 1.5

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:** 0.0

SERG 5800 [0.0] Sustainable Energy Seminar

5. **0.5 credit in:** 0.5

PADM 5121 [0.5] Policy Analysis: The Practical Art of Change

6. **0.5 credit in:** 0.5

PADM 5510 [0.5] Energy Economics

7. **0.5 credit in:** 0.5

PADM 5515 [0.5] Sustainable Energy Policy
or PADM 5615 [0.5] Politics and Policy of Energy in Canada

8. **2.0 credits in:** 2.0

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.

M.A.Sc. Sustainable Energy (5.0 credits)

M.A.Sc. Sustainable Energy (5.0 credits)

1. **1.0 credit in:** 1.0

SERG 5001 [0.5] Sustainable Energy Policy for Engineers

SERG 5003 [0.5] Energy Evaluation and Assessment Tools

2. **0.0 credit in:** 0.0

SERG 5800 [0.0] Sustainable Energy Seminar

3. **1.5 credits in:**

Mechanical Engineering focus:

1.5 credits in Mechanical Energy Conversion courses (listed below), or Sustainable Energy Policy courses. A maximum of 0.5 credits in Sustainable Energy Policy courses will be allowed.

or

Electrical Engineering focus:

1.5 credit in Efficient Electrical Energy Systems courses (listed below) or Sustainable Energy Policy courses. A maximum of 0.5 credits in Sustainable Energy Policy courses will be allowed.

4. **2.5 credits in** M.A.Sc. thesis: 2.5

MECH 5909/ M.A.Sc. Thesis

SYSC 5909/

ELEC 5909 [2.5]

Total Credits 5.0

M.Eng. Sustainable Energy (5.0 credits)

Requirements:

1. **1.5 credits in:** 1.5

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

2. **0.0 credit in:** 0.0

SERG 5800 [0.0] Sustainable Energy Seminar

3. **1.5 credits in:** 1.5

Mechanical Engineering focus:

1.5 credits in Mechanical Energy Conversion courses (listed below), or Sustainable Energy Policy courses. A maximum of 0.5 credits in Sustainable Energy Policy courses will be allowed.

or

Electrical Engineering focus:

1.5 credit in Efficient Electrical Energy Systems courses (listed below) or Sustainable Energy Policy courses. A maximum of 0.5 credits in Sustainable Energy Policy courses will be allowed.

4. **2.0 credits in:** 2.0

Mechanical Engineering focus:

Graduate-level MECH courses

or

Electrical Engineering focus:

Graduate level ELEC, SYSC or EACJ courses

Total Credits **5.0**

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

Requirements:

1. 1.0 credit in: **1.0**

CLIM 5000 [1.0] Climate Collaboration

2. 0.0 credit in:

CLIM 5800 [0.0] Climate Seminar Series

3. 1.5 credits in: **1.5**

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: **0.5**

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. 2.0 credits in: **2.0**

Mechanical Engineering focus:

Graduate-level MECH courses

or

Electrical Engineering focus:

Graduate-level ELEC, SYSC or EACJ courses

Total Credits **5.0**

Courses - Mechanical Energy Conversion

| | |
|-----------------|--|
| MECH 5006 [0.5] | Solar Energy |
| MECH 5009 [0.5] | Environmental Fluid Mechanics Relating to Energy Utilization |
| MECH 5201 [0.5] | Methods of Energy Conversion |
| MECH 5203 [0.5] | Nuclear Engineering |
| MECH 5204 [0.5] | Fundamentals of Combustion |
| MECH 5205 [0.5] | Building Performance Simulation |
| MECH 5206 [0.5] | Wind Engineering |
| MECH 5402 [0.5] | Gas Turbines |
| ENVE 5101 [0.5] | Air Pollution Control |
| SERG 5906 [0.5] | Directed Studies in Sustainable Energy |

With the approval of the Department, the following courses may be included in the above list:

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|-----------------|-------------------------------------|
| CIVE 5705 [0.5] | Topics in Structures |
| CIVE 5706 [0.5] | Topics in Structures |
| CIVE 5707 [0.5] | Topics in Structures |
| CIVE 5708 [0.5] | Topics in Structures |
| CIVE 5709 [0.5] | Topics in Structures |
| ENVE 5701 [0.5] | Topics in Environmental Engineering |
| ENVE 5702 [0.5] | Topics in Environmental Engineering |

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| ENVE 5703 [0.5] | Topics in Environmental Engineering |
| ENVE 5704 [0.5] | Topics in Environmental Engineering |
| ENVE 5705 [0.5] | Topics in Environmental Engineering |
| MECH 5800 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5801 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5802 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5803 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5804 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5805 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5806 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5807 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5808 [0.5] | Special Topics in Mechanical and Aerospace Engineering |
| MECH 5809 [0.5] | Special Topics in Mechanical and Aerospace Engineering |

Courses - Efficient Electrical Energy Systems

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|-----------------|---|-----|
| ELEC 5200 [0.5] | Advanced Topics in Integrated Circuits and Devices | 0.5 |
| ELEC 5302 [0.5] | Renewable and Distributed Energy Resource Technologies | 0.5 |
| ELEC 5405 [0.5] | Advanced Linear and Nonlinear Circuit Theory and Applications | 0.5 |
| ELEC 5509 [0.5] | Integrated Circuit Technology | 0.5 |
| ELEC 5707 [0.5] | Microsensors and MEMS | 0.5 |
| ELEC 5808 [0.5] | Signal Processing Electronics | 0.5 |
| ELEC 5900 [0.5] | Engineering Project I | 0.5 |
| SYSC 5001 [0.5] | Simulation and Modeling | 0.5 |
| SYSC 5004 [0.5] | Optimization for Engineering Applications | 0.5 |
| SYSC 5006 [0.5] | Design of Real-Time and Distributed Systems | 0.5 |
| SYSC 5103 [0.5] | Software Agents | 0.5 |
| SYSC 5104 [0.5] | Methodologies For Discrete-Event Modeling And Simulation | 0.5 |
| SYSC 5105 [0.5] | Software Quality Engineering and Management | 0.5 |
| SYSC 5207 [0.5] | Distributed Systems Engineering | 0.5 |
| SYSC 5401 [0.5] | Adaptive and Learning Systems | 0.5 |
| SERG 5906 [0.5] | Directed Studies in Sustainable Energy | 0.5 |

Courses - Sustainable Energy Policy

| | |
|-----------------|--|
| PADM 5510 [0.5] | Energy Economics |
| PADM 5511 [0.5] | Energy Management |
| PADM 5512 [0.5] | International Politics of Sustainable Energy |
| PADM 5572 [0.5] | Policy Seminar (Sustainable Energy) |
| PADM 5611 [0.5] | Science and Technology Policies |

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|--|--|
| PADM 5612 [0.5] | Industrial Policy, Innovation and Sustainable Production |
| PADM 5613 [0.5] | Science, Risk and Evaluation |
| PADM 5614 [0.5] | Natural Resource Management |
| PADM 5616 [0.5] | Environmental Policy |
| PADM 5617 [0.5] | Implementing Sustainable Development in Industrialized Countries |
| PADM 5618 [0.5] | Environmental and Ecological Economics |
| PADM 5619 [0.5] | Urban Sustainability |
| PADM 5620 [0.5] | The Science, Politics and Economics of Global Climate Change |
| SERG 5906 [0.5] | Directed Studies in Sustainable Energy |
| Other courses as approved by the MA supervisor | |

Regulations

See the General Regulations section of this Calendar.

Academic Standing

A grade of B- or better must be obtained in each course counted towards the master's degree.

Full-time Continuation

Students will be required to withdraw from the program if their weighted grade point average falls below 7.0 (B-) after two terms of full-time study (or equivalent), or if they receive a grade of less than B- in any two courses they have registered in.

Part-time Continuation

Students will be required to withdraw from the program if their weighted grade point average falls below 7.0 (B-) after completing 2.0 credits, or if they receive a grade of less than B- in any two courses they have registered in.

Regularly Scheduled Break

For immigration purposes, the summer term (May to August) for the

- Master of Public Policy in Sustainable Energy and the Environment (coursework pathway)
- Master of Public Policy in Sustainable Energy and the Environment with Collaborative Specialization in Climate Change (coursework pathway)

is considered a regularly scheduled break approved by the University. Students should resume full-time studies in September.

Note: a Regularly Scheduled Break as described for immigration purposes does not supersede the requirement for continuous registration in Thesis, Research Essay, or Independent Research Project as described in Section 8.2 of the Graduate General Regulations.

Regulations

See the General Regulations section of this Calendar.

Academic Standing

A grade of B- or better must be obtained in each course counted towards the master's degree.

Full-time Continuation

Students will be required to withdraw from the program if their weighted grade point average falls below 7.0 (B-) after two terms of full-time study (or equivalent), or if they receive a grade of less than B- in any two courses they have registered in.

Part-time Continuation

Students will be required to withdraw from the program if their weighted grade point average falls below 7.0 (B-) after completing 2.0 credits, or if they receive a grade of less than B- in any two courses they have registered in.

Regulations

See the General Regulations section of this Calendar.

Academic Standing

A grade of B- or better must be obtained in each course counted towards the master's degree.

Full-time Continuation

Students will be required to withdraw from the program if their weighted grade point average falls below 7.0 (B-) after two terms of full-time study (or equivalent), or if they receive a grade of less than B- in any two courses they have registered in.

Part-time Continuation

Students will be required to withdraw from the program if their weighted grade point average falls below 7.0 (B-) after completing 2.0 credits, or if they receive a grade of less than B- in any two courses they have registered in.

Regularly Scheduled Break

For immigration purposes, the summer term (May to August) for the M.Eng. Sustainable Energy (coursework and project pathways only) is considered a regularly scheduled break approved by the University. Students should resume full-time studies in September.

Note: a Regularly Scheduled Break as described for immigration purposes does not supersede the requirement for continuous registration in Thesis, Research Essay, or Independent Research Project as described in Section 8.2 of the Graduate General Regulations.

Admission

Applicants must have a bachelor's degree (or equivalent), with an average of B+ or higher. The level of academic performance and potential demonstrated within the degree is more important than the discipline; students may enter the program from a wide variety of academic backgrounds in the social sciences, humanities, sciences and engineering. Mid-career applicants who do not have a bachelor's degree, but who have demonstrated professional excellence over a number of years of work in the public sector will also be considered.

All applicants must have completed 1.0 credit in university-level micro- and macroeconomic theory (ECON 1000 [1.0] or the equivalent)

0.5 credit in PSCI at the 2000-level or higher, dealing with institutions and processes by which governments

legitimize and exercise power, ideally in a Canadian setting (PSCI 2003 or equivalent).

A working knowledge of algebra is also expected.

In some cases, applicants may be admitted to the program despite not having completed one of these prerequisite courses in economics or political science, on the condition that the course be completed with a grade of B- or higher in the first year of the program. It is strongly recommended that students complete the prerequisites before starting the program, to ensure that their progress through the core courses is unimpeded.

Students whose first language is not English or who have not completed a previous degree at an English speaking university must demonstrate an adequate command of English by attaining, at least, a TOEFL score of 237 CBT (computer-based test) or 580 (written); or 86 IBT overall with a minimum score in each component of: writing: 22; speaking: 22; reading: 20; and listening: 20, or a CAEL score of 70, or an IELTS score of 7.0.

Admission

Applicants must have a bachelor's degree (or equivalent) in a discipline relevant to engineering disciplinary foundations.

Normally, an average of B+ or higher is required for admission.

Admission

Applicants must have a bachelor's degree (or equivalent) in a discipline relevant to engineering disciplinary foundations.

Normally, an average of B+ or higher is required for admission.

Co-operative Education

For more information about how to apply for the Co-op program and how the Co-op program works please visit the Co-op website.

All students participating in the Co-op program are governed by the Graduate Co-operative Education Policy.

Graduate Co-operative Education Policy

Admission and Participation Requirements

For co-op admission and participation requirements please visit: <http://calendar.carleton.ca/grad/gradregulations/administrationoftheregulations/#14>.

Master of Arts, Sustainable Energy: Co-op Admission and Continuation Requirements

A co-op option is available to full-time students in the M.A. program. Students admitted to this option must satisfactorily complete at least two work terms in order to graduate with a co-op designation on their transcripts and diplomas. These work terms are four months in duration and locate students in government departments or other organizations in order to work at a junior officer level. They provide students with opportunities to integrate the theoretical and practical aspects of public administration. During a work term, students will register in PADM 5913.

While on a work term, students are limited to an additional 0.5 credit course. It should be noted that most co-op positions in the federal public service are restricted to Canadian citizens.

Co-operative Education

For more information about how to apply for the Co-op program and how the Co-op program works please visit the Co-op website.

All students participating in the Co-op program are governed by the Graduate Co-operative Education Policy.

Graduate Co-operative Education Policy

Admission and Participation Requirements

For co-op admission and participation requirements please visit: <http://calendar.carleton.ca/grad/gradregulations/administrationoftheregulations/#14>.

Master of Engineering, Sustainable Energy: Co-op Admission and Continuation Requirements

A co-op option is available to full-time students in the M.Eng. program. Students admitted to this option must satisfactorily complete at least two work terms in order to graduate with a co-op designation on their transcripts and diplomas.

These work terms are four months in duration and locate students in government departments or other organizations in order to work at a junior level. They provide students with opportunities to integrate the theoretical and practical aspects of engineering and public administration. During a work term, students will be registered in SERG 5913. While on a work term, students are limited to an additional 0.5 credit course, which must be taken outside of work hours. It should be noted that most co-op positions in the federal public service are restricted to Canadian citizens.

Admission Requirements

Students who are interested in admission into the co-op education option and who anticipate meeting the admission requirements outlined below by the end of their second term of academic study must apply by the end of their first term of academic study.

To be eligible for admission to the co-op option, students must:

- be registered in the M.Eng. Sustainable Energy program;
- have successfully completed, before the start of their first work term, a minimum of 2.0 credits towards the M.Eng. program (of which 0.5 credits must be SERG 5001), with a minimum GPA in the program of 9.0;
- be eligible to work in Canada (for off-campus work placements).

Meeting the preceding requirements only establishes eligibility for admission to the co-op option – the prevailing job market may limit enrolment in it. Students should also note that hiring priority is given to Canadian citizens for co-op positions under the auspices of the Public

Service Commission. Every effort will be made to find a work placement for each student admitted into the co-op program, but there are no assurances that a co-op position will be found. Students with high CGPA, enthusiasm, and potential, however, will have a competitive edge in securing co-op employment. Students will be assisted by the Carleton University Co-op Office to find work term positions.

Graduation

Students must successfully complete two work terms with a grade of SAT for each, in addition to the M.Eng. degree requirements, to successfully graduate and receive a co-op designation on their final transcript and diploma.

Work Term Course:

SERG 5913 [0.0] Co-operative Work term 0.0

Students who are accepted into the Co-op Education Option will be registered in SERG 5913 each time they secure a work term. In order to make it possible to complete their program no later than one study term after their two work terms, a student should also register in SERG 5004 during their fall work term.

Sustainable Energy (SERG) Courses

SERG 5001 [0.5 credit]

Sustainable Energy Policy for Engineers

This course introduces engineering students to the policy world by examining political and policy institutions, and covering basic principles of policy analysis, as they relate to the energy realm.

SERG 5002 [0.5 credit]

Sustainable Energy Engineering for Policy Students

This course introduces policy students to fundamental principles of engineering, particularly as they relate to energy production, transformation and consumption.

SERG 5003 [0.5 credit]

Energy Evaluation and Assessment Tools

Introduction to principles and tools for financial and performance analysis of energy projects, systems and technologies, and their application. Topics may include: probability theory, regression analysis, cost-benefit analysis, life cycle analysis, carbon accounting and emissions modeling, and other techniques particular to the energy field.

SERG 5004 [1.0 credit]

Applied Interdisciplinary Project

Application of assessment tools, energy evaluation methods, engineering, economics and policy studies to actual sustainable energy projects.

Includes: Experiential Learning Activity

Precludes additional credit for SERG 5000 (no longer offered).

Prerequisite(s): SERG 5003 and one of SERG 5001 or SERG 5002.

SERG 5005 [0.5 credit]

Applied Interdisciplinary Project

Application of assessment tools, energy evaluation methods, engineering, economics and policy studies to actual sustainable energy projects.

Includes: Experiential Learning Activity

Precludes additional credit for SERG 5004.

Prerequisite(s): SERG 5003 and one of SERG 5001 or SERG 5002.

SERG 5800 [0.0 credit]

Sustainable Energy Seminar

A series of seminars presented by researchers and practitioners in the area of sustainable energy. To complete this course, a student must attend at least ten seminars during their program.

SERG 5906 [0.5 credit]

Directed Studies in Sustainable Energy

A directed course on selected subjects related to sustainable energy as approved by a course supervisor.

SERG 5909 [2.0 credits]

MA Sustainable Energy Thesis

Includes: Experiential Learning Activity

SERG 5913 [0.0 credit]

Co-operative Work term

Includes: Experiential Learning Activity