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**

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

Requirements - 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		1.0
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:**		
	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	
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:		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.		1.5
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/ SYSC 5909/ ELEC 5909 [2.5]	M.A.Sc. Thesis	
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:	
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
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

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 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
PADM 5612 [0.5]	Industrial Policy, Innovation and Sustainable Production
PADM 5614 [0.5]	Natural Resource Management

PADM 5616 [0.5]	Environmental Policy
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 information about how to apply for the Co-op program and how the Co-op program works, visit the Co-op website.

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

Application Requirements

Graduate students are encouraged to apply to the Co-op Program during their first term of studies. Alternatively, students may delay their participation until later on, provided that they have mandatory credits remaining for degree completion.

Participation Requirements

Graduate students:

- must be registered as full-time before they begin their co-op job search and their co-op work term.
- will be registered in a Co-op Work Term course while at work. This course does not carry academic course credit, but is noted on academic transcripts.
- may register in a 0.5 credit during a work term, provided the course is offered during the evening or is offered asynchronously online.
- are not permitted to hold a Teaching Assistantship while on a co-op work term. Where eligible, Teaching Assistantships will be deferred to a later term.
- in receipt of internal or external scholarships should contact Graduate Studies to discuss the possible funding implications of being on a co-op work term
- must have mandatory courses left to complete following their final co-op work term. In cases where the graduate student has just a 0.5 credit left, he or she may request permission of the Co-op Office to complete this course during the work term.

Co-op Participation Agreement

All graduate students must adhere to the policies found within the Co-op Participation Agreement.

Communication with the Co-op Office

Graduate students must maintain regular contact with the Co-op Office during their job search and while on a work term. All email communication will be conducted via the student's Carleton email account.

Graduation with the Co-op Designation

In order to graduate with the Co-op Designation, graduate students must satisfy all requirements of the degree program in addition to the successful completion of two work terms. Students found in violation of the Co-op Participation Agreement may have the Co-op Designation withheld.

Employment

Although every effort is made to ensure a sufficient number of job postings for all Co-op students, no guarantee of employment can be made. The Co-op job search process is competitive, and success is dependent upon factors such as current market conditions, academic performance, skills, motivation, and level of commitment to the job search. It is the student's responsibility to apply for positions via the Co-op job board in addition to actively conducting a self-directed job search. Students who do not obtain a co-op work term are expected to continue with their academic studies. It should be noted that hiring priority for positions within the Federal Government of Canada is given to Canadian citizens.

Work Term Assessment and Evaluation

Work Term Evaluation

Employers are responsible for submitting to Carleton University final performance evaluations for their Co-op students at the end of their work terms.

Work Term Assessment

In order to successfully complete the co-op work term, graduate students must receive a Satisfactory (SAT) grade on their Co-op Work Term Report, which they must submit at the completion of each four-month work term.

Voluntary Withdrawal from the Co-op Option

Students who are currently on a co-op work term or who have already committed to a co-op work term either verbally or in writing may not leave the position and/or withdraw from the co-op option until they have completed the requirements of the work term.

Involuntary or Required Withdrawal from the Co-op Option

Graduate students may be removed from the Co-op Program for any of the following reasons:

1. Failure to attend all interviews for positions to which the student has applied;

2. Declining more than one job offer during the job search;
3. Reneging on a co-op position that the student has accepted either verbally or in writing;
4. Continuing a job search after accepting a co-op position;
5. Dismissal from a work term by the co-op employer;
6. Leaving a work term without approval from the Co-op Management Team;
7. Receipt of an unsatisfactory work term evaluation;
8. Receiving a grade of UNS on the work term report;

International Students

All Graduate International Students are required to possess a Co-op Work Permit issued by Immigration, Refugees and Citizenship Canada before they can begin working. The Co-operative Education Office will provide students with a letter of support to accompany their Co-op Work Permit application. Students are advised to discuss the application process and application requirements with the International Student Services Office.

Co-op Fees

All participating Co-op students are required to pay Co-op fees. For full details, please see the Co-op website.

Co-operative Education Option Master of Public Policy - Sustainable Energy and the Environment

Students are encouraged to apply for admission to the Co-operative Education Program by the end of their first term of academic study.

To be eligible for admission to Co-op, students must:

1. be enrolled in the Master of Public Policy, Sustainable Energy and the Environment (MPP-SEE);
2. have successfully completed, by the start-date of the first work term, at least 2.0 credits of core MPP-SEE courses;
3. be registered as a full-time student in each academic term prior to a work term;
4. be eligible to work in Canada (for off-campus work terms)

For more information, please refer to the Co-operative Education Policy.

Co-operative Education

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

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

Application Requirements

Graduate students are encouraged to apply to the Co-op Program during their first term of studies. Alternatively, students may delay their participation until later on, provided that they have mandatory credits remaining for degree completion.

Participation Requirements

Graduate students:

- must be registered as full-time before they begin their co-op job search and their co-op work term.
- will be registered in a Co-op Work Term course while at work. This course does not carry academic course credit, but is noted on academic transcripts.
- may register in a 0.5 credit during a work term, provided the course is offered during the evening or is offered asynchronously online.
- are not permitted to hold a Teaching Assistantship while on a co-op work term. Where eligible, Teaching Assistantships will be deferred to a later term.
- in receipt of internal or external scholarships should contact Graduate Studies to discuss the possible funding implications of being on a co-op work term
- must have mandatory courses left to complete following their final co-op work term. In cases where the graduate student has just a 0.5 credit left, he or she may request permission of the Co-op Office to complete this course during the work term.

Co-op Participation Agreement

All graduate students must adhere to the policies found within the Co-op Participation Agreement.

Communication with the Co-op Office

Graduate students must maintain regular contact with the Co-op Office during their job search and while on a work term. All email communication will be conducted via the student's Carleton email account.

Graduation with the Co-op Designation

In order to graduate with the Co-op Designation, graduate students must satisfy all requirements of the degree program in addition to the successful completion of two work terms. Students found in violation of the Co-op Participation Agreement may have the Co-op Designation withheld.

Employment

Although every effort is made to ensure a sufficient number of job postings for all Co-op students, no guarantee of employment can be made. The Co-op job search process is competitive, and success is dependent upon factors such as current market conditions, academic performance, skills, motivation, and level of commitment to the job search. It is the student's responsibility to apply for positions via the Co-op job board in addition to actively conducting a self-directed job search. Students who do not obtain a co-op work term are expected to continue with their academic studies. It should be noted that hiring priority for positions within the Federal Government of Canada is given to Canadian citizens.

Work Term Assessment and Evaluation

Work Term Evaluation

Employers are responsible for submitting to Carleton University final performance evaluations for their Co-op students at the end of their work terms.

Work Term Assessment

In order to successfully complete the co-op work term, graduate students must receive a Satisfactory (SAT) grade on their Co-op Work Term Report, which they must submit at the completion of each four-month work term.

Voluntary Withdrawal from the Co-op Option

Students who are currently on a co-op work term or who have already committed to a co-op work term either verbally or in writing may not leave the position and/or withdraw from the co-op option until they have completed the requirements of the work term.

Involuntary or Required Withdrawal from the Co-op Option

Graduate students may be removed from the Co-op Program for any of the following reasons:

1. Failure to attend all interviews for positions to which the student has applied;
2. Declining more than one job offer during the job search;
3. Reneging on a co-op position that the student has accepted either verbally or in writing;
4. Continuing a job search after accepting a co-op position;
5. Dismissal from a work term by the co-op employer;
6. Leaving a work term without approval from the Co-op Management Team;
7. Receipt of an unsatisfactory work term evaluation;
8. Receiving a grade of UNS on the work term report;

International Students

All Graduate International Students are required to possess a Co-op Work Permit issued by Immigration, Refugees and Citizenship Canada before they can begin working. The Co-operative Education Office will provide students with a letter of support to accompany their Co-op Work Permit application. Students are advised to discuss the application process and application requirements with the International Student Services Office.

Co-op Fees

All participating Co-op students are required to pay Co-op fees. For full details, please see the Co-op website.

Co-operative Education Option M. Eng. Sustainable Energy

Students are encouraged to apply for admission to the Co-operative Education Program by the end of their first term of academic study.

To be eligible for admission to Co-op, students must:

1. be enrolled in the Master of Engineering Sustainable Energy;
2. have successfully completed, by the start-date of the first work term, a minimum of 2.0 credits towards the M.Eng program, including SERG 5001 Sustainable Energy Policy for Engineers;
3. obtained a minimum CGPA of 9.0;
4. be registered as a full-time student in each academic term prior to a work term;
5. be eligible to work in Canada (for off-campus work terms)

For more information, please refer to the Co-operative Education Policy.

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