



THE VALE MASTERS IN ENGINEERING SCHOLARSHIP

Open to Canadian women working on their master's degree in any field of engineering with an interest in mining, metallurgical engineering or related field of engineering

APPLICATION INFORMATION AND CRITERIA

ABOUT THE VALE MASTER'S IN ENGINEERING SCHOLARSHIP

The Canadian Engineering Memorial Foundation was founded in 1990 to develop scholarship and award programs that encourage women to choose engineering as a career and to honour the memory of the 14 women at École Polytechnique whose contributions to Canada ended on December 6, 1989.

Each year, in conjunction with CEMF, Vale offers one \$10,000 scholarship to a woman enrolled full-time in a master's program at a Canadian university in any field of engineering who has an interest in mining, metallurgical or related field and hopes to use her engineering expertise to work in the Canadian mining industry.

As well, this scholarship may come with a summer job opportunity at a Vale facility at Vale's discretion. With numerous locations across Canada, there is an opportunity for winners to get real work experience close to home.

Applicants should be aware they will be required to pass a job interview and be available for a potential summer job as a condition of this scholarship.

This scholarship is meant to encourage women to pursue a career in the mining industry and have them act as ambassadors to promote the industry's cutting edge technology and opportunities for creativity.

Leadership, extracurricular activities, volunteer work and the ability to act as a role model for younger women are all criteria for this scholarship.

Applicants must be willing to act as role models and to promote engineering in the mining industry particularly to young women. The scholarship recipient will be required to make at least two presentations to students at the high school level.

Along with the financial award, there are many other great reasons for applying for this scholarship:

1. **Summer Job Opportunity.** At Vale's discretion, a summer job opportunity may be offered. This will provide real work experience and skill-building along with establishing a relationship with Vale, an international leading producer of nickel, copper, cobalt and precious metals. **Applicants should be aware they will be required to pass a job interview with Vale and be available for the potential summer job as a condition of this scholarship.**
- **Promotion and Recognition.** Those selected for a CEMF scholarship are featured in an annual Winners Brochure with a biography and photo distributed nationally, an individualized press release sent to the national media, professional engineering associations, the recipient's university and community media. As well, the winners' names, photos, university and year of receiving the scholarship are prominently promoted on the website. Throughout the year, winners are promoted through a variety of public relation methods from posters to media interviews.
 - **Career Networking and Travel Opportunities.** Recipients may be invited to attend the CEMF Awards Luncheon to be presented with their award. This event is held at the AGM of Engineers Canada which is held in various national venues. Travel and accommodation may be provided by Vale, and winners are given an opportunity to meet and socialize with prominent members of the industry and leaders in engineering innovation. As well, the CEMF Board of Directors comprises of professional engineers who are available to advise and/or mentor winners in pursuing a successful career.
 - **Recipients Can Use the Monies in Any Capacity.** Unlike many other scholarships, CEMF does not require scholarship winners to apply the award to tuition, books or academic costs. Rather, scholarships are geared to helping students stay in engineering and can be used in any capacity the student requires – from living expenses to child care.
 - **A Focus on the Future.** Scholarship recipients act as ambassadors to the field of mining and metallurgical engineering and serve as role models for other young women to encourage them to become professional engineers.
 - **A Scholarship for Leaders.** While recognizing academic excellence is important, the Vale Scholarship is not awarded based on academic achievement. Instead, the focus is on female students who are proven leaders in their community and who

have dedicated time to extracurricular activities and volunteerism while serving as a role model to others.

- **We Are Here to Help.** Applicants can call CEMF toll-free while preparing their application to ask questions or for clarification of requirements. **1-866-883-2363.**

QUALIFICATION and ELIGIBILITY REQUIREMENTS

Applicants to this scholarship should carefully review the eligibility requirements listed below along with using the checklist provided, to ensure **ALL** required documents are included when applying.

Applications that are missing required documents will be immediately disqualified.

1. You must be a Canadian citizen, or have a Permanent Resident card.
2. You must be a female student enrolled full-time in a full-time engineering master's program at a Canadian university (this will be confirmed through your Dean) **AND** must either have:
 - a. An undergraduate engineering degree from an **accredited** Canadian program. (*Visit the Engineers Canada website at www.engineerscanada.ca where all accredited Canadian university engineering programs are listed to check your eligibility*); **OR**
 - b. Have your P.Eng. designation as per Canadian and provincial regulations; **OR**
 - c. Be recognized by the Professional Engineering Association in your province of residence as an Engineer-In-Training/Junior Engineer. You must provide CEMF with your E.I.T. number or Junior Engineer number on your application.

If you have applied for registration as an E.I.T. but have not received confirmation from your Provincial Association by the scholarship application deadline, please submit a copy of your application form. If you are selected as the winner, CEMF will not release any monies until your E.I.T. / Junior Engineer status is confirmed by the provincial association.

3. While there is no limitation on the number of applications from any university or program, you **CANNOT** apply to more than one CEMF scholarship a year. You **CANNOT** win this scholarship more than once. You **CAN**, if unsuccessful this year, reapply in subsequent years to this scholarship or another CEMF scholarship.

4. All applications must be submitted through the Dean's office, and **MUST** be accompanied by the Dean's (or his/her delegate's) letter of support.
5. You must be a leader, a volunteer and an active person in your community and/or university. **Scholarships are awarded based primarily how you are involved in your own community and the leadership skills that you have demonstrated.** There is special emphasis placed on leadership and encouraging others to contribute to bettering Canadian society. Professional experience will also be considered.
6. **Grades do not constitute a criterion for the award of this scholarship.**
7. You must be willing to act as a role model to encourage other women to pursue a career in engineering in the mining industry; scholarship recipients must give at least two presentations to high school level audiences using the presentation prepared for this scholarship application.
8. You must give permission for your photo and name to be used by CEMF and Vale for scholarship promotional purposes.
9. You must have 100 per cent completed the application requirements listed below and submitted them by the stated deadlines.
10. You are aware this is a competition and a judging panel will use specific guidelines to select the recipients (see below). Judges reserve the right not to issue any scholarships in any given year depending on the quality of the applications. All decisions of the judges are final.
11. You must be available for an interview with Vale during the application process.
12. You are aware that Vale reserves the option, based on employment availability, to not offer the summer job position in any given year. Vale will work with you to find a job position that is a reasonable match to your skill, education and experience level, and reasonable geographic location. For first year master's students, arrangements can be made to defer the summer job due to research responsibilities, with Vale's permission, until after second year of your program.

READY, SET – GO!!

- All documents must be typed and double-spaced in 12-point Times New Roman font.
- The **entire** application is to be provided, including original signed documents, in both hard copy AND electronic format on a Windows XP Platform CD, DVD or

Memory Stick. The quality of both hard copy and electronic copy are scored, so present both in a well organized and complete format.*

**The only exceptions are the reference letters or letter of support from the Dean, as those providing this information may not want the applicant to see it in advance. In this case, the letter may be mailed directly to CEMF directly or signed, scanned and emailed. This letter must be received by the deadline, and CEMF will scan the document for the judges.*

APPLICATION DOCUMENTS

1. **The Letter of Support from Dean and his/her Role:** The Dean's office is responsible for reviewing and giving final approval for your application via a Letter of Support. This letter must be submitted with your application, by the deadline. It should state that the Dean or delegate has reviewed all completed Vale Master's in Engineering Scholarship application documents. Suggested criteria for approbation of candidates by Deans or their appointed delegates include :
 - Actively participates in extracurricular activities and demonstrates leadership skills;
 - Is a well-rounded individual;
 - Participates in public duties, community and volunteer work;
 - Has good interpersonal and communication skills;
 - Has an interest in education;
 - Displays curiosity, perseverance, creativity, problem-solving skills and bias for action;
 - Meets the academic standards of the university faculty;
 - Is a full-time master's student with an undergraduate degree in engineering, or is registered P.Eng, or has E.I.T. status.

2. **Applicant Declaration:** Print and complete the Applicant Declaration at the bottom of this document, ensuring it is signed for your hard copy and electronic submission. Scan this document for your CD, DVD or Flash Drive.

3. **Application Form:** Print and complete the Application Form at the bottom of this document, ensuring it is signed for your printed submission. Scan this document for your CD or Flash Drive.

4. **Informational Letter:** Write an Informational Letter, no longer than four pages, in proper business format and address to the **Vale and CEMF Judging Committee**. This letter should include:

- A general outline of your professional experience (either in practicing engineering, research, teaching, or other professional undertakings), elaborating on dates, length of involvement, names of supervisors, nature of work or research, particular achievements, publications, thesis etc. and how it relates to the mining and metallurgical fields.
 - Tell us about your career interest in the mining industry and what you envision as your future role in this field of engineering.
 - A description of why you think your extracurricular activities make you a strong role model for other young women in engineering and what you have learned from your experiences.
 - Tell us about yourself: your hobbies, membership, organizations, athletic and cultural achievements, and what kind of person you are.
 - An outline of your academic curriculum (what you are studying, your research, undergraduate degrees, etc.) Do not send us your academic grades; the scholarship is not based on academic achievements.
 - A list of awards received, including other scholarships, honours and recognitions. Applicants must be prepared to provide proof of any listed activity or awards if asked by the judges (i.e. the phone number of a coach, a photocopy of a certificate, etc.)
5. **Extra-Curricular Activities:** Using the chart provided at the end of this document, create a list or chart showing your involvement in community and extra-curricular activities (use the chart provided at the bottom of this document as an example). Your list should include your role, duration of the activity, frequency of the activity and any awards or recognitions you have received. Applicants must be prepared to provide proof of any listed activity or awards if asked by the judges (i.e. the phone number of a coach, a photocopy of a certificate, etc.)
 6. **Curriculum Vitae:** Attach your CV to your Informational Letter.
 7. **A Colour Photograph:** This will not be sent to the judging panel, but in the event you are selected to receive this scholarship, it will be used for promotional purposes so make sure it is a photo you like!
 8. **Reference Letters:** Using the form at the bottom of this document, supply two letters of reference. If you have engineering work experience, one **MUST** be from an employer – if you do not, then that reference must be from someone who has witnessed your involvement in extra-curricular activities **not** affiliated with your university. The second reference **MUST** be from your immediate faculty

supervisor. Each reference must use the scholarship reference form and these forms must be submitted directly to the Dean's office, and are to be included with your submission to CEMF.

9. **Proof of Citizenship:** Include a photocopy of your birth certificate or proof of Canadian citizenship, or a photocopy of your Permanent Resident Card. This document will not be sent to the judges as it is for qualification purposes only.
10. **Presentation:** Create a Power Point Presentation **geared to a high school level audience**, with a text transcript of what you will be saying while giving your presentation either in the Notes section of the Power Point or as a separate word document. At the end, include a bibliography of all your sources. Your entire presentation time should not exceed 20 – 30 minutes.

Presentation to High School Level Students:

Why I became an engineer

Should you receive this scholarship, this is the presentation you will give. Ensure it is unique, exciting and inspiring – this is meant to motivate your high school level audience to pursue a career in the mining and metallurgical industry.

Through this creative and imaginative presentation, you must convey at least the following points:

- Your passion for mining engineering and industry and what influenced you most to choose this profession;
- The social responsibility of engineers including a general explanation on how the profession is self-regulating;
- A demonstration of a mining engineering principle that will intrigue and motivate the audience while at the same time demonstrating the practical application of engineering to solve a problem. It should engage members of the audience. (You will be filming this portion of your presentation as well, see number 11 below).
- Whatever additional topics you consider essential to create a genuine and lasting interest in the mining industry on the part of your young audience.

Please ensure your presentation and film includes:

- The transcript of what you are going to say as you deliver your presentation in the Notes section of the Power Point or in a Word document.
- A bibliography at the end listing sources used.

11. **Video Clip of Your Engineering Principle Demonstration:** We want to see this part of your PPT presentation live. You do not have to film your entire presentation JUST the portion of you doing your demonstration of the engineering principle. It must be a short 5 -10 minute movie in WMV format, ***compressed to no more than 100 MB***, of yourself ***in front of a live audience*** demonstrating the interactive part of the above presentation (Bullet three above). **While professional quality is not expected, the movie should be a high standard production, not amateur; this is a heavily weighted judging component.**

JUDGING CRITERIA & AWARD ALLOTMENT REQUIRMENTS

A judging committee appointed by CEMF, including a representative from Vale if available, will select the winners, with the judges being both professional engineers and non-engineers, when possible and fully bilingual if required.

The committee's assessment will be based on all of the documents and information provided by the applicant. Any application that is incomplete in any way will be rejected prior to judging and CEMF will inform the applicant of the disqualification. Another application from that student will not be accepted until the following year. All decisions of the judges are final.

Judging will be based on the following criteria:

- a. Effectiveness of your Power Point presentation **(30%)**;
- b. Effectiveness of your short Demonstration of an Engineering Principle Movie Clip **(15%)**;
- c. Informational letter written by you (Application Document #4) about your professional, volunteer, extracurricular and role model activities, etc. **(10%)**;
- d. Scope of community involvement and extracurricular activities that demonstrate leadership and outreach interests **(15%)**;
- e. Professional achievements through research and work experience **(10%)**;
- f. Achievements and leadership potential as perceived through the two reference letters and Dean's Letter of Support on provided forms **(10%)**;
- g. Overall quality of your application, **both** electronic and hardcopy **(10%)**.

Judges will base a large part of their assessment on the presentation – it must be unique, interesting and convincingly encourage young women in the audience that mining and metallurgical engineering is a career path they should follow.

INTERVIEW

Should you be selected as the top applicant for this scholarship, CEMF will connect you with Vale so they can organize an interview with you. You should prepare for this interview as you would for any professional career opportunity. Succeeding at this interview will be the final determining factor in receiving the scholarship.

YOU ARE A WINNER!

Should you be named the successful applicant, CEMF will contact you using the permanent contact information provided on your application form.

Successful applicants will be paid in two installments. Failure to meet any of the following requirements by the set deadlines will result in the scholarship installments being withdrawn. Documentation may be sent in earlier than the set deadlines but not later.

First installment of **\$4,000** upon provision of required documentation on or by **October 15, 2012** as set out below:

1. Prior to payment of the 1st installment, a letter from your faculty supervisor confirming your continued enrolment in your master's engineering program.
2. You must have contacted Vale (CEMF will provide you the contact information) and made summer job arrangements. If a summer job offer is not made for 2012, Vale must release you, by letter, from the obligation for the year.

Second installment of **\$6,000** will be provided once all the following requirements have been met by the set deadlines as set out below:

1. You must have made your two presentations to high school level audiences and handed out the *Presentation Questionnaire* for your audiences to complete (the *Questionnaire* will be provided to you by CEMF). Those *Questionnaires* are to be collected at the end of your presentations and put **in a sealed envelope with the flap signed by the attending teacher or group leader**. The attending teacher or group leader at both presentations must provide a signed letter stating you made your presentation to a high school level audience and that they signed the questionnaire envelope. **These letters and questionnaires must be provided to CEMF on or before June 30, 2013.**

1. A written update of community and/or extra-curricular involvement demonstrating leadership qualities received by CEMF by **October 15, 2013.**
3. Proof of continued enrolment in the master's program or successful completion thereof received by **CEMF by October 15, 2013.**
4. A letter from Vale regarding the completion of your summer job, or if not completed, proof the job position is organized and in place, or a letter from them releasing you from that obligation by **October 15, 2013.**

Scholarship funds may be used by the winners as they wish!

CEMF will guide you through the process, inform you if you are invited to attend the awards presentation and help make travel arrangements, will send you a copy of the press release and winners' brochure and make all efforts to support your future career in engineering. Your photo, university and year of study will be posted on the website.

APPLY NOW!

Double-Check – Do you have all the documents in hardcopy and on CD, DVD or Memory Stick?

All applications must be submitted to your Dean's office who must submit all applications directly to:

The Canadian Engineering Memorial Foundation
Vale Master's in Engineering Scholarship
P. O. Box 370, 3-247 Barr Street
Renfrew, Ontario K7V 4A6

All application packages must be Post-marked or Courier Date-stamped no later than Midnight Friday, January 13, 2012.



DECLARATION OF APPLICANT

I have read the instructions, and hereby make application for the Vale Master's in Engineering Scholarship, and I declare:

1. That I have personally written my application, prepared the CD/DVD/Memory Stick presentation, addressed all required issues fully and completely and that, to the best of my knowledge, the information provided in this application is true;
2. That I will be a full-time master's student at the named university for the period stated;
3. That I have arranged for at least two Reference Forms to be submitted directly to the Dean of Engineering of the university I am attending and received a Letter of Support from the Dean or his/her delegate;
4. That if awarded a scholarship I agree to provide my SIN Number to CEMF for Income Tax Purposes;
5. That, as a recipient of the award, I agree to submit a letter from my faculty supervisor confirming my continued enrolment in my master's engineering program by **October 15, 2012** to receive the first installment of the Scholarship.
6. That as a recipient of the award, I agree to arrange the delivery of my proposed presentation to at least two high school level audiences, to provide letters of proof of presentation to CEMF and to provide the *Questionnaires* in a signed, sealed envelope plus the letters of proof of presentation to **CEMF all on or before June 30, 2012.**
7. That, as a recipient of the award, I agree to submit an update of my community involvement, extracurricular activities and proof of my continuing enrollment in the master's program from my faculty supervisor, or successful completion thereof, **by October 15, 2013** to receive the second installment of the Scholarship;
8. That I have completed my summer job placement with Vale or been released from the obligation in accordance with the first and second installment requirements and provided correspondence from Vale as proof of completion or release by October 15, 2013.
9. That, as a recipient of the award, I agree to help fulfill the mandate of the Canadian Engineering Memorial Foundation by actively promoting women in engineering to young people in general and to continue to promote engineering careers in the mining industry specifically; and
10. That I agree to allow my name, photograph, presentation and study plans to be released publicly if I receive this award.

Signature of applicant

Date



**The Vale Master's In Engineering Scholarship
APPLICATION FORM**

Applicant's Name: _____

Permanent Mailing Address (Home): _____

Applicant's Telephone No: _____ (The number where you can be reached should you win the award)

Applicant's Email: _____

Other Phone or Contact: _____ (an alternate number where you can be reached, please indicate who's number this is, i.e. cell phone; parents, etc.)

University: _____ Program: _____

Specialty (Research): _____

Expected Date of Graduation: _____ Year of Study: _____

Signed by: _____ Date: _____
(Dean of Engineering)



Applicant's Name / *Nom de la candidate* :

Name of the Referee/Reference / *Nom du répondant/référence* :

Title / *Titre* :

Organization or Institution /
Organisme ou établissement :

Full Mailing Address & Telephone Number / *Adresse postale au complet et numéro de téléphone* :

Completion of this recommendation form is a necessary part of the application process for the Canadian Engineering Memorial Foundation Scholarships.

The Selection Committee of the Canadian Engineering Memorial Foundation places a great deal of importance on your confidential recommendations. We realize this requires time and effort on your part and we greatly appreciate your assistance.

A prompt return to the Office of the Dean of Engineering at the University where the applicant is registered is important.

If possible, please type or print your responses.

Le processus d'application pour les bourses de la Fondation commémorative du génie canadien exige que ce formulaire de recommandation soit complété.

Le comité de sélection de la Fondation commémorative du génie canadien donne beaucoup de poids à ces recommandations confidentielles (votre recommandation compte pour 15% de la note totale). Nous comprenons le temps et l'effort que cette démarche peut nécessiter et nous apprécions votre coopération.

Il est important de retourner promptement vos réponses au bureau du doyen de génie de l'université où la candidate est inscrite.

Si possible, dactylographier ou écrire vos réponses en caractères d'imprimerie.

How long have you known the Applicant and in what capacity? / *Depuis combien de temps connaissez-vous la candidate, et à quel titre?*

What, in your opinion, differentiates this Applicant from her peers? / *D'après vous, qu'est-ce qui différencie cette candidate de ses pairs?*

Comment on Applicant's leadership potential, organizational and motivation skills. / *Veillez commenter les qualités leadership, et les talents d'organisation et de motivation de la candidate.*

Comment on the Applicant's communication and interpersonal skills, and ability to work with others. **Specifically provide an assessment of the Applicants teaching skills** / *Veillez commenter les compétences interpersonnelles de la candidate, son habileté à communiquer et à travailler en groupe.*

Comment on the Applicant's analytical skills, creativity, curiosity, perseverance, problem-solving and "doing". / *Veillez commenter les talents analytiques, la créativité, la curiosité, la persévérance, l'habileté à résoudre des problèmes et le penchant pour l'action de la candidate.*

When you compare this Applicant to other students at her level you have taught, led, guided, employed, how does she compare overall. / *Lorsque vous comparez cette candidate à d'autres étudiant(e)s du même niveau auxquels vous avez enseigné, que vous avez dirigés, guidés, employés, comment se compare-t-elle en général?*

Exceptional/Unique <i>Exceptionnelle/unique</i>	Above Average <i>Au dessus de la moyenne</i>	Average <i>Dans la moyenne</i>	Unable to Rank <i>Incapable de la classifier</i>
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Feel free to provide any further comments that you feel would aid the Selection Committee in the evaluation of the Applicant. Additional pages may be attached. / *N'hésitez pas à fournir des commentaires supplémentaires qui assisteraient le comité de sélection dans l'évaluation de la candidate. Vous pouvez ajouter des pages additionnelles.*

Signature of Referee

Date

Signature du répondant



Sample Applicant Information on Community, Extracurricular and Sports Activities

Name of Applicant: _____

University: _____ Program: _____

Year	Community Activities	Timing	Awards/Recognition (Note)
2009	Community theatre group	2 plays. Practice 2 nights per week	
2009	Festival – volunteer at BBQ stand	Evenings one week and one Saturday	
2010	Guide leader	Weekly plus one week Summer Camp	
2011	Took advanced art classes in Life Drawing	Every Saturday morning	
2011	Volunteer at Seniors' home	3 Saturdays	Given plaque from Senior Citizen's home
	Extra-curricular, including Sports Activities		
2009	Soccer – High School	Weekly practice & games during school year	Made Team Captain
2010	Secretary of High School Student Council	Weekly meeting during year plus preparation. Help organize activities	
2009-11	On community Soccer Team	Weekly practice & games during summer	
2011	University Debating Team	Weekly practice/competition	2004 Ontario Champs

(Sept 2011)