

EXCELLENCE in science

2004-2005 Contest



JULIE-ANNE DENIS, génie environnemental, Université Laval

www.meq.gouv.qc.ca/chapeau
Register at your educational institution

Québec



Prizes:

- 5 cash prizes of \$5 000
- 1 cash prizes of \$1 000
- 14 cash prizes of \$2 000
- Two career development trips in the Americas or Belgium
- Three paid work placements

Application deadline:
February 11, 2005

Chapeau les Princes!

The **Ministère de l'Éducation (MEQ)** and the **Ministère du Développement économique et régional et de la Recherche** will award 10 cash prizes of \$2 000, one cash prize of \$3 000 and four cash prizes of \$5 000 to female science or engineering students. Additional prizes will be awarded by the following partners:

- Agence Québec Wallonie Bruxelles pour la jeunesse (AQWBJ)
- Centrale des syndicats du Québec (CSQ)
- Confédération des syndicats nationaux en collaboration avec la Fédération nationale des enseignantes et enseignants du Québec (CSN) and the Fédération des professionnelles (CSN)
- Chaire CRSNG/Alcan pour les femmes en sciences et génie au Québec
- Chaire Marianne-Mareschal de l'École Polytechnique de Montréal
- Fédération des travailleurs et travailleuses du Québec (FTQ)
- GlaxoSmithKline
- Ministère de l'Agriculture, des Pêcheries et de l'Alimentation
- Ministère de l'Environnement
- Ministère des Ressources naturelles, de la Faune et des Parcs
- Office Québec-Amériques pour la jeunesse (OQAJ)



The **Ministère de l'Éducation**, in collaboration with the **Ministère du Développement économique et régional et de la Recherche**, is inviting women enrolled in selected branches of the pure sciences, in the information sciences or in engineering to take part in the *Excellence in Science Contest*.

NEW PRIZE!

This year, a new award has been added in the transportation industry, thanks to the financial support of the **Ministère des Transports**.

This contest, held in Québec university-level institutions, is intended specifically for women enrolled in programs leading to a bachelor's degree in a field of science where women account for less than a third of enrollments.

The contest, which is part of the *Hats Off to You!* competition, is organized by the MEQ's **Secteur de la formation professionnelle et technique et de la formation continue** (vocational and technical training and lifelong learning division) with the financial support of the MEQ's **Secteur de l'enseignement supérieur** (higher education division).

Like the *Hats Off to You!* competition for women in vocational and technical training programs, the *Excellence in Science Contest* is aimed at getting women to expand their career options and at encouraging those training for nontraditional occupations to persevere until they earn their diploma.

AWARDS CEREMONY

The winners of the *Excellence in Science* contest will receive their prizes at the provincial awards ceremony for the *Hats Off to You!* competition to be held in May 2005.

PLACEMENT ASSISTANCE FOR AWARD WINNERS

Placement étudiant du Québec (PEQ), the Québec government student placement service, will offer consulting services to help winners find jobs by connecting them with potential employers.

Section 1 { Eligibility Requirements

- Candidates must have attended a university-level institution in Québec in 2004-2005 and have been enrolled full-time in one of the following programs:

PURE SCIENCES

- 5215-Biophysics
- 5240-Physical sciences
- 5243-Meteorology and atmospheric sciences
- 5244-Geology (mineralogy)

APPLIED SCIENCES

- 5340-Information sciences
- 5350-Engineering
- 5352-Aerospatial, aeronautical and astronautical engineering
- 5353-Agricultural engineering, rural engineering
- 5354-Food engineering
- 5356-Chemical engineering
- 5358-Civil, construction and transportation engineering
- 5359-Electrical, electronic and communications engineering
- 5360-Mechanical engineering
- 5361-Geological engineering
- 5363-Industrial and administrative engineering

- 5364-Metallurgical and materials engineering
- 5368-Mining engineering
- 5369-Engineering physics
- 5371-Surveying
- 5373-Computer and information systems engineering
- 5375-Forestry engineering, forestry and silviculture

- There is no age limit for participating in the competition. However, special eligibility requirements may apply to certain categories, namely Category 2, Career Development Trips Outside Québec. Candidates must therefore carefully read over the eligibility requirements described in this brochure.
- Previous winners do not qualify for this year's contest.
- Candidates cannot claim more than one prize.

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Section 2 { Portfolio

CANDIDATES MUST SUBMIT THE FOLLOWING:

- 1 a duly completed registration form (see page XX)
- 2 a personal introduction of no more than two pages (see Section 3)
- 3 a short essay of no more than one page for candidates in a thematic category. In this essay, the candidate outlines the reasons for her choice by answering the relevant questions listed in this brochure. Candidates interested in several categories must write an essay for each category entered
- 4 a résumé
- 5 a copy of the most recent transcript issued by the university attended

Section 3 { Personal Introduction

PRESENTATION REQUIREMENTS

The personal introduction must meet the following presentation requirements:

- be no more than two pages long
- use 1.5 line-spacing and 11-point Arial font
- be printed on one side of white letter-sized paper
- use full justification of text
- use no binding, gluing, spiral binding, cardboard cover, stapling, etc.
- leave margins (top, bottom, left and right) of at least 1.5 cm

The short essay for the thematic categories must be no more than one page long and must conform to the same presentation requirements as the personal introduction.

Besides the written texts, no other item (object, photograph, special document, etc.) will be accepted for the purposes of evaluating portfolios.

Note: Candidates whose personal introductions do not meet these standards will be disqualified.

TO SATISFY THE SELECTION CRITERIA (SEE SECTION 4) THE PERSONAL INTRODUCTION MUST INCLUDE THE FOLLOWING INFORMATION:

- 1 **Personal history and career objectives**
 - a) What are the highlights of your personal, academic or working life?
 - b) What are your goals for the future in your chosen occupation?
- 2 **Your choice of a traditionally male-dominated occupation**
 - a) Why did you decide to choose this occupation?
 - b) What aptitudes or personal qualities do you have that will allow you to achieve personal fulfillment in an occupation where women are a minority?
 - c) What strategies do you use that will help you persevere and succeed in an occupation traditionally reserved for men?
- 3 **Your knowledge of your chosen occupation**

Describe your chosen occupation, the duties involved and the related work conditions.
- 4 **Personal actions or occupational achievements**

Which of your actions or achievements demonstrate your commitment (in terms of education, society and the community) in relation to your chosen occupation?
- 5 **Your reasons for entering the contest**

What are your reasons for entering the contest and why do you believe you should be selected to participate?

Note: Candidates wishing to enter one or more thematic categories must, in addition to their personal introduction, write a short essay no longer than one page, in which they answer the questions in the following pages.

Section 4 { Selection Criteria

PORTFOLIOS WILL BE ASSESSED ACCORDING TO THE FOLLOWING CRITERIA:

- submission of a complete portfolio
- quality of the presentation
- compliance with presentation requirements
- clarity of the personal introduction and short essay
- authenticity and persuasiveness of the personal introduction and short essay
- relevance of the reasons for entering the contest
- academic achievement

Section 5 { Application Process and Deadlines

THE CANDIDATE MUST:

Prepare her portfolio (registration form, personal introduction, short essay, résumé and copy of most recent university transcript)

— — —

Indicate which of the thematic categories she intends to compete in by checking off the appropriate boxes on the registration form

— — —

Send her portfolio by **February 11, 2005** to the following address:

Excellence in Science Contest
Ministère de l'Éducation
1035, rue De La Chevrotière, 12^e étage
Québec (Québec) G1R 5A5

Telephone: (418) 644-4163
Fax: (418) 643-1926

E-mail:
chapeaulesfilles@meq.gouv.qc.ca

EXCELLENCE
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Category 1 { Cash Prizes

{ EXCELLENCE IN SCIENCE

The **Ministère de l'Éducation** will be awarding five prizes of \$2 000 and two prizes of \$5 000, and the **Ministère du Développement économique et régional et de la Recherche** will likewise be awarding five prizes of \$2 000 and two prizes of \$5 000.

In addition, **GlaxoSmithKline** will be awarding one prize of \$5 000.

REQUIREMENTS

Candidates must be enrolled in one of the programs listed in Section 1. In addition, they must submit a portfolio that meets the requirements outlined in Section 2 and write a personal introduction of no more than two pages in which they answer the questions listed in Section 3.

They must also write a short essay of no more than one page in which they answer the following questions about the involvement of women in scientific occupations:

- What do you think about the fact that women are underrepresented in careers in science and technology?
- In your opinion, what factors prevent greater numbers of women from entering a career in science and technology?
- What measures could be taken to encourage girls in this regard?
- What do you think about the image that researchers currently have?

{ Next Generation

The **Ministère de l'Éducation** and the **Ministère du Développement économique et régional et de la Recherche** will be jointly awarding a prize of \$3 000 to a first-year female student enrolled in one of the programs listed in Section 1.

CONDITIONS

Candidates must satisfy the general eligibility requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

They must also write a short essay of no more than one page in which they answer the following questions about the new generation of women in science and technology:

- In your opinion, what factors prevent greater numbers of women from entering a career in science and technology?
- In your opinion, what measures should be taken to ensure that there is a new generation of women choosing a career in science and technology?

{ Agriculture

The **Ministère de l'Agriculture, des Pêcheries et de l'Alimentation** will be awarding a prize of \$2 000 to a female student enrolled in agricultural engineering, rural engineering (5353) or food engineering (5354).

REQUIREMENTS

Candidates must submit a portfolio in accordance with the requirements set out in Section 2 and write a personal introduction of no more than two pages that answers the questions set out in Section 3.

They must also write a short essay of no more than one page on agri-foods that answers the following questions:

- How will the competencies you have acquired during your training prepare you to work in the field of agri-foods?
- What is your current involvement in the field?

{ Transportation

The **Ministère des Transports** will be awarding one cash prize of \$2 000 to a candidate who is enrolled in one of the following programs:

5350-Engineering

5352-Aerospatial, aeronautical
and astronautical engineering

5358-Civil, construction and transportation engineering

5371-Surveying

REQUIREMENTS

Candidates must submit a portfolio in accordance with the requirements set out in Section 2 and write a personal introduction of no more than two pages that answers the questions set out in Section 3.

They must also write a short essay of no more than one page on transportation that answers the following questions:

- In your opinion, what is the main challenge in the field of transportation today?
- How has your education and training prepared you to meet this challenge?





{ Equity

The **Fédération des travailleurs et travailleuses du Québec (FTQ)** will be awarding one cash prize of \$2 000 to a candidate who left an unstable job (part-time, on call, on contract, temporary, etc.) to train or retrain for a traditionally male-dominated occupation or trade.

REQUIREMENTS

Candidates must meet the general eligibility requirements set out in Sections 1 and 2, and submit a personal introduction in accordance with the requirements set out in Section 3.

Candidates must also write a short essay no longer than one page on their personal experience in an unstable job, as well as their past, present and future experiences with union, social or volunteer involvement, answering each of the following questions:

- Why did you choose to train or retrain for a male-dominated occupation or trade?
- How will your experience and training help you:
 - enter the job market and keep your job?
 - improve your own situation as well as working conditions for women in general?

Note: The jury of the **Fédération des travailleurs et travailleuses du Québec (FTQ)** reserves the right not to award a prize if all the requirements are not satisfied.

{ Cultural or Native Community

The **Confédération des syndicats nationaux (CSN)**, the **Fédération nationale des enseignantes et enseignants du Québec (CSN)** and the **Fédération des professionnelles [sic] (CSN)** will together be awarding a prize of \$2 000 to a woman who has chosen a nontraditional occupation and who is either a Native person or someone who regards herself as a member of a cultural community.

REQUIREMENTS

Candidates must satisfy the general contest requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

They must also write a short essay of no more than one page in which they answer the following questions about the involvement of women from cultural communities in nontraditional occupations:

- As a member of a cultural community, what obstacles did you have to face?
- Were you encouraged to fulfill your ambition? If so, how?
- What motivated you to choose a nontraditional occupation?

{ Perseverance

The **Centrale des syndicats du Québec (CSQ)** will be awarding a prize of \$2 000 to the female student who has shown exceptional perseverance in learning a traditionally male-dominated occupation.

This award recognizes perseverance in the achievement of career goals, highlighting the candidate's efforts to enter a nontraditional occupation. It is not designed to reward those who have overcome physical or social handicaps, unless these handicaps are directly related to the chosen occupation.

REQUIREMENTS

Candidates must satisfy the general contest requirements set out in Sections 1 and 2, and submit a personal introduction in accordance with the requirements set out in Section 3.

Candidates must also write a short essay no longer than one page that describes their perseverance in learning their occupation or trade, while answering the following questions:

- What obstacles did you encounter and how did you overcome them?
- How did you motivate yourself to persevere in pursuing your career goals? Describe your experience.

Category 2 { Career Development Trips Outside Québec

{ Career Development Trip — Wallonia-Brussels

UA bursary will be awarded by the **Agence Québec Wallonie Bruxelles pour la jeunesse (AQWBJ)** for a career development trip to Wallonia or Brussels.

This bursary will allow the best candidate in this category to do a work placement with a company connected to her field of study. The trip will last from six to 12 weeks, will be supervised by the AQWBJ and will take place between September 2005 and August 2006.

THE AQWBJ BURSARY INCLUDES:

- exemption from the registration fees for the AQWBJ program, the identification of a suitable company, an information session, and completion of the administrative formalities for obtaining a work permit and temporary visa for Wallonia or Brussels
- a \$700 allowance for round-trip air transportation between Montréal and Brussels
- a total living allowance of \$1 200 paid by AQWBJ. Further information on the AQWBJ is available at www.aqwbj.org.

ELIGIBILITY

Candidates must:

- be between 18 and 30 years of age at the time of the work placement
- be a Canadian citizen or a permanent resident and have resided in Québec for at least one year

CONDITIONS

The candidate must satisfy the general contest requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

She must also write a short essay of no more than one page in which she answers the following questions:

- **What personal reasons and objectives led you to apply for a career development trip to Wallonia or Brussels?**
- **How will your participation in a working trip to Wallonia or Brussels help improve mutual understanding between two French-speaking communities and encourage cooperation in an increasingly international environment?**
- **How will this experience help you enhance your skills and further your personal and professional development?**

{ Career Development Trip—the Americas

Financial assistance for a career development trip will be provided by the **Office Québec-Amériques pour la jeunesse (OQAJ)** to the best candidate in this category. This stay (e.g. work placement, applied research practicum) will last from four to 12 weeks and must be related to the selected candidate's field of study.

EACH OQAJ PRIZE INCLUDES:

- round-trip transportation between Montréal and the destination for the career development trip in the Americas
- a local transportation allowance for candidates who live far from the departure airport
- a living allowance of \$1 500 paid by the OQAJ
- travel insurance

Further information on the OQAJ is available at www.oqaj.gouv.qc.ca

RESPONSIBILITIES OF THE SELECTED CANDIDATE

The selected candidate is entirely responsible for finding a host organization for her career development trip, as well as for following the administrative procedures related to the requirements for entering the destination country (obtaining a temporary visa or any other formality) within the required time. The OQAJ is in no way responsible for the procedures involved in obtaining temporary visas or for paying any costs related to it.

Award winners must complete their career development trip within 12 months after they are awarded this prize (**i.e. before May 2006**).

ELIGIBILITY

Candidates must:

- be between 18 and 35 years of age at the time of the career development trip
- be a Canadian citizen or permanent resident and have resided in Québec for at least one year
- have the language skills necessary for the career development trip (specify languages spoken - English, Portuguese, Spanish).

REQUIREMENTS

Candidates must satisfy the general contest requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

They must also answer the following questions:

- **How is a career development trip to the Americas likely to help you enhance your skills and further your career development?**
- **How will your participation in a career development trip in the Americas help to improve mutual understanding and develop a cooperative relationship between Québec and the host country?**



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Category 3 { Paid Work Placement

{ Work Placement in the Environmental Sector

A paid work placement worth approximately \$6 500 will be awarded by the **Ministère de l'Environnement (ME)**.

The 12-to-15-week work placement must be a compulsory part of the selected candidate's program or carry credits toward her diploma, further to an agreement between the ME and the educational institution. The selected candidate is responsible for making sure that her educational institution will recognize the work placement as part of her program. The selected candidate may opt for a \$2 000 cash prize instead of the work placement.

Candidates must be enrolled in one of the following programs:

5215-Biophysics
5243-Meteorology and atmospheric sciences
5350-Engineering
5356-Chemical engineering
5358-Civil engineering
5360-Mechanical engineering
5363-Industrial and administrative engineering
5364-Metallurgical and materials engineering
5368-Mining engineering
5371-Surveying
5375-Forest engineering, forestry and silviculture

Further information on the **Ministère de l'Environnement** is available at www.menv.gouv.qc.ca.

REQUIREMENTS

Candidates must satisfy the general contest requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

They must also write a short essay of no more than one page in which they answer the following questions about environmental protection:

- How will the skills acquired in your university program help you become professionally involved in environmental protection?
- How are you currently involved in environmental protection?

{ Work Placement in the Natural Resources Sector

A paid work placement worth approximately \$5 500 will be awarded by the **Ministère des Ressources naturelles, de la Faune et des Parcs**.

Lasting approximately 15 weeks, this work placement will be awarded to the best candidate in this category and will carry credits toward her diploma, further to an agreement with the educational institution. The selected candidate is responsible for making sure that her educational institution will recognize the work placement as part of her program.

Candidates must be enrolled in one of the following programs:

5358-Civil, construction and transportation engineering
5364-Metallurgical and materials engineering
5368-Mining engineering
5369-Engineering physics
5371-Surveying
5375-Forest engineering, forestry and silviculture

Further information on the **Ministère des Ressources Naturelles** is available at www.mrnfp.gouv.qc.ca.

REQUIREMENTS

Candidates must satisfy the general contest requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

They must also write a short essay of no more than one page in which they answer the following questions about natural resources:

- How will the skills acquired in your university program help you become professionally involved in areas related to natural resources?
- How are you currently involved in these areas?

{ Work Placement in a University Research Laboratory

A paid work placement worth \$5 000 will be awarded by the **Chaire CRSNG/Alcan** and the **Chaire Marianne-Mareschal**. The work placement will be hosted by a research laboratory at Université Laval, in Québec City, or at the **École Polytechnique**, in Montréal, during the summer term. The selected candidate will be assigned to a laboratory according to her field of specialization.

Further information on these two research chairs is available at the following Web addresses:

- www.chairemm.polymtl.ca
- www.fsg.ulaval.ca/chaire-crsng-alcan

REQUIREMENTS

Candidates must satisfy the general contest requirements set out in Sections 1 and 2 and write a personal introduction according to the instructions outlined in Section 3.

They must also write a short essay of no more than one page in which they answer the following question about applied research:

- How will this experience help you enhance your skills and further your career development?

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IN SCIENCE



EXCELLENCE in science

2004-2005 Contest



JULIE-ANNE DEMIS, génie environnemental, Université McGill

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