

The Don Gray Scholarship in Canadian Hydrology

1) Background

Created to honour the memory of Donald Maurice Gray BSA, MSA, Ph.D. (1929-2005), the Dr. Donald Gray Scholarship in Canadian Hydrology will be awarded annually to a promising doctoral candidate in Don's chosen field of hydrology. The Gray family believes this scholarship is an appropriate tribute to Don's remarkable lifetime achievements and his enthusiasm for academically preparing students to further their studies in the field of Hydrology.

Don made his most significant lifetime achievements in developing Hydrology as a Geophysical Science. Well known as the "Father of Canadian Hydrology" in the scientific community, Don was a dedicated researcher and scientist whose substantial contributions moved the field of hydrology from infancy to its current highly regarded status. During the course of his career Don mentored more than 68 graduate students, brought in millions of dollars in research grants and produced over 132 publications.

Don's substantial contributions to the fields of snow and prairie hydrology meant that he was considered the leader in these scientific fields for much of his career. Seminars on Familiarization with the Principles of Hydrology, much of which Don organized and delivered, trained many of the future Canadian hydrologists and the notes became the basis for the Handbook On The Principles Of Hydrology. Don's international reputation became solidified with the publication of the Handbook Of Snow: Principle, Processes, Management and Use in 1980. This comprehensive book on snow remains the primary world reference on all aspects of snow.

Internationally, Don aided in the establishment of a Water Resources Management Engineering School near the Arctic Circle at the University of Lulea, Sweden and in the creation of the international hydrology journal *Nordic Hydrology*. He was the Canadian delegate to the UNESCO Working Group on Representative and Experimental Basins and served on the editorial boards of several well-known hydrology journals.

Don chaired the Division of Hydrology at the University of Saskatchewan, Saskatoon from 1965-2001. It was from here that he would train many of Canada's hydrologists while creating a critical mass of research and a reputation for excellence in process understanding, instrumentation, and computer simulations with a special emphasis on the Canadian Prairies and the North.

Don played a highly significant role in brokering the arrangement that led the National Hydrology Research Centre to relocate from Ottawa to Saskatoon by chairing a small committee of Deans who made the recommendation that the University of Saskatchewan form a Research Corporation-now Innovation Place, the largest research park on campus in Canada. It was Don's idea and drive that established the Hydrology Section of the CGU in the early 1990s.

Don inspired excellence and loyalty amongst his colleagues and co-workers and created excitement and belief that Canada should and could have a confident scientific assessment of its water resources and would lead the way for the world in doing so.

As an educator and mentor, Don provided each student his time, expertise and energy to ensure that graduates of his program were highly trained scientists ready to contribute to the body of knowledge in hydrology. He opened doors to seek out opportunities for graduates and remained a loyal supporter and mentor throughout their careers. The Gray family is proud to be a part of awarding a scholarship that accurately reflects Don's high expectations and recognition of scholastic achievement.

2) Award

The Don Gray Scholarship in Canadian Hydrology is a \$2500 scholarship awarded at the annual meeting of the Canadian Geophysical Union.

3) Eligibility

The Don Gray Scholarship in Canadian Hydrology is open to doctoral candidates studying in the broad field of hydrology. Applicants must be registered in a fulltime, thesis-based doctoral program, and be within their first twenty-four months of study at the time of application. The applicant must be undertaking their degree at a Canadian University, but field research (if applicable) may be undertake anywhere in the world.

4) Application Process

The application includes a brief cover letter, a current curriculum vitae (CV), a graduate research proposal, unofficial academic transcripts, and two letters of appraisal from academic referees.

i) Cover letter. A brief cover letter should state the name of the award, and the applicant's name, current position (e.g. PhD candidate in [Program/Department], University of []) and current contact information. It should also include the names and contact information of the two referees.

ii) Curriculum Vitae. The applicant must provide a current CV that includes: (1) Education (degree, discipline, institution, start date, (anticipated) completion date), (2) Academic, research and other relevant work experience, (3) Scholarships and awards, (4) Publications (e.g. theses, refereed journal articles, reports, published abstracts), and (5) any other information deemed directly relevant to establishing the applicant's scholarly credentials.

iii) Proposal. The applicant must provide a one-page research proposal outlining the project background/rationale, scientific approach, and expected outcomes and significance. In addition to the one-page proposal, an additional page is permitted for bibliographic references.

iv) Transcripts. Unofficial transcripts from the institution at which formal course work was last completed is required. Transcripts are to be submitted electronically by the student as part of the application package. Note that official transcripts may be requested before final award.

v) Letters of Appraisal. Two letters are required from academic referees (one, if applicable, from the current Master's or doctoral supervisor). Referees are asked to comment specifically on the applicant's research ability/potential and on the applicant's communication, interpersonal and leadership abilities. Letters should be limited to one page, signed, and submitted electronically directly by the referees to the Chair of the CGU Awards Committee. Letters submitted through the applicant will not be considered.

1) CRITERIA FOR ASSESSMENT

Applicants for the Don Gray Scholarship in Canadian Hydrology are evaluated according to criteria that parallel those of the NSERC PGS program:

i) Academic excellence

- Academic record
- Scholarships and awards held

ii) Research ability or potential

- Quality of contributions to research and development
- Significance, feasibility, and merit of proposed research
- Ability to think critically
- Ability to apply skills and knowledge
- Judgment
- Originality
- Initiative and autonomy
- Enthusiasm for research
- Determination and ability to complete projects within an appropriate period of time

iii) Communication, interpersonal and leadership abilities

- The ability or potential to communicate scientific concepts clearly and logically in written and oral formats. For example, this could include:
 - o quality of the application's presentation;
 - o participation in preparing publications; and
 - o awards for oral presentations or papers.
- Professional and relevant extracurricular interactions and collaborations. For example, this could include:
 - o mentoring;
 - o teaching;
 - o supervisory experience;
 - o project management;
 - o chairing committees;

- o organizing conferences and meetings; and
- o elected positions held.

The adjudication committee will assess the above criteria with the following weighting scheme:

- 30% Academic Excellence
- 50% Research Ability and Potential
- 20% Communication, interpersonal and leadership abilities

Excellence is an essential requirement for this award. If, in the judgment of the adjudication committee, this requirement is not met by any of the candidates the award will not be given.

2) **Deadline for Application, Adjudication and Notification**

The application deadline is 1 December each year, or later as communicated to CGU members.

The application package includes a brief cover letter, CV, research proposal and unofficial undergraduate and graduate transcripts. Application materials should be submitted by the applicant in a **single pdf file** to the address below. Letters of reference should be submitted directly by the referees to the Awards Chair:

Dr. Geneviève Ali
Chair CGU Awards Committee
Associate Professor, McGill University [e-mail: genevieve.ali@mcgill.ca](mailto:genevieve.ali@mcgill.ca)

The applications will be adjudicated by an awards committee appointed by the Canadian Geophysical Union. The winner of the Don Gray Scholarship in Canadian Hydrology will be notified sufficiently in advance so that s/he may make arrangements to attend the annual meeting of the Canadian Geophysical Union to receive the award in person.