



# Memorandum

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**TO:** Senate

**FROM:** Chair & Principal, Professor Suzanne Fortier

**SUBJECT:** “Non-Traditional/Out-of-the-Classroom Learning: Integrating Research Internships in Undergraduate Studies”

**DATE:** November 19, 2014

**DOCUMENT #:** D14-16

**ACTION REQUIRED:**  INFORMATION     APPROVAL/DECISION

**ISSUE:** Hold an open discussion during which Senators will discuss “Non-Traditional/Out-of-the-Classroom Learning: Integrating Research Internships in Undergraduate Studies.”

**BACKGROUND & RATIONALE:** Each governance year, Senate holds at least two open discussions – one in the Fall and one in the Winter term.

In September 2014, Senators submitted potential topics for open discussions. Following a review of topics suggested by Senators, the Steering Committee selected the following open discussion topic for the 2014-2015 academic year: “Nontraditional/out-of-the-classroom learning at McGill.”

The November 19, 2014 open discussion focuses on integrating research experience/internships in undergraduate studies, while the February 2015 discussion will focus on learning through co-op, internship and work-related experiences.

**MOTION OR RESOLUTION FOR APPROVAL:** N/A

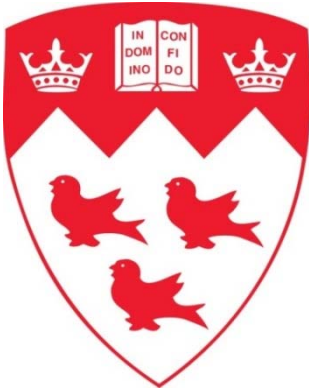
**PRIOR CONSULTATION:** Senate Steering Committee

The Vice-Principal (Research and International Relations) and the Deputy-Provost (Student Life and Learning) developed background documentation.

**NEXT STEPS:** Implementation of shortlisted actions

**APPENDICES:** Appendix A: Background materials





# Senate Open Discussion: Undergraduate Research Opportunities

Office of the Provost

Office of the Deputy Provost, Student Life and Learning

Office of the Vice-Principal, Research and International Relations

November 19, 2014



## Overview:

McGill is a research-intensive institution that offers an outstanding educational experience. McGill provides its highly capable undergraduate students with opportunities to work with some of the best researchers in the world, to participate in cutting-edge research, and to develop their own supervised research projects.

When asked recently to report on “outside the classroom” opportunities for undergraduate students, McGill Faculties listed **some 2,300 opportunities across all disciplines**. This did not include students who volunteer to work in laboratories.

Our donors are very generous in their support of undergraduate research awards and recognize the value of these opportunities for students.

## Current Initiatives:

McGill’s Faculties offer an array of undergraduate research opportunities. Some notable examples are listed here:

### Faculty of Science

The Faculty of Science supports student participation in laboratory research and research projects from the start of their degree, and their continued involvement in research as part of their program requirements. The following are some key features of the Science program:

- Over 50% of graduating B.Sc. students have at least one research course on their transcript;
- students who complete at least 9 research credits spanning a minimum of two fields are recognized at graduation on the Dean’s Multidisciplinary Undergraduate Research List (54 students in 2013-14);
- individual research project courses or major/honours research courses are available in almost all B.Sc. teaching departments plus some medical units; and;
- undergraduate research supervision is included in faculty tenure and promotion dossiers;
- the [Office for Undergraduate Research in Science \(OURS\)](#) maintains a [database](#) of professors who offer research opportunities to undergraduates, and a listing of “[other](#)” research opportunities, including numerous research-based work-study opportunities for students;
- it also hosts a series of short research talks (Soup and Science) each semester to introduce students to McGill Science professors and their research and an annual Undergraduate Research Conference;
- students also gain research experience through summer scholarship programs such as the NSERC-Undergraduate Science Research Awards (USRA) or the Faculty’s own Science Undergraduate Research Awards (SURA).

The [McGill Science Undergraduate Research Journal](#) is a student-led initiative to publish and promote undergraduate research.

### Faculty of Engineering

The Faculty of Engineering offers the [Summer Undergraduate Research Program](#) (SURE) award which gives successful applicants the opportunity to work closely with a McGill Engineering professor on one of their research projects for 16 weeks in the summer. The program invites students to develop research skills as well as offering insight into the graduate school experience and careers in research. The program is supported by the Faculty, the NSERC USRA program, and by donors. Engineering also hosts an annual poster competition to showcase and reward student research.

### Faculty of Agricultural and Environmental Sciences

The Faculty of Agricultural and Environmental Sciences offers undergraduate students opportunities to expand their learning through research project courses, or by research design courses integrated directly into the curriculum. The Faculty runs an NSERC USRA competition and hosts an annual poster competition.

### Faculty of Arts

The Faculty of Arts offers the Arts Undergraduate Research Awards program (ARIA) which supports undergraduate students who undertake research during the summer under the direct supervision of a faculty member. Students contribute to the professor's research agenda while gaining important research skills. Since ARIA was established in 2010, a total of 169 awards have been disbursed to students from all departments and programs in the Faculty of Arts. The Awards are donor-funded. The Faculty hosts an annual undergraduate research event featuring multimedia presentations from students and a research poster showcase to celebrate contributions of undergraduate students to research in the Faculty.

### Faculty of Medicine

The Faculty of Medicine offers the [Research Bursary Program](#). Students in undergraduate and non-thesis programs such as Medicine, Nursing, Speech-Language Pathology, Physical Therapy and/or Occupational Therapy are eligible to apply. The program provides students with an opportunity to work in a research environment alongside clinical and fundamental scientists and their trainees. Each student works on a health-related and hypothesis-driven project and are involved in the scientific experimentation process.

## DISCUSSION QUESTIONS

1. Access: Is there an opportunity for each qualified student? Capacity? Compensation?
2. If there is not an opportunity for each qualified student, how might we open research opportunities to underrepresented student populations?
3. How can we supervise a large number of undergraduate and graduate students without running into resource issues?
4. Credit/Recognition: Should all undergraduate research opportunities be credited? If not, should they be recognized in some ways?
  - a. Paid
  - b. Co-Curricular record
  - c. Letter of reference
  - d. Etc.
5. Should we recognize research internships outside the university?
6. Do we have tracking mechanisms for student research across the University?