McGill University Lifetime Achievement Award for Leadership in Learning

The McGill University Lifetime Achievement Award for Leadership in Learning recognizes sustained excellence in leadership and innovation, as well as the active integration of teaching and learning with inquiry, scholarship and research. Faculty members, students, former students, and others are encouraged to nominate colleagues and professors whose long-term achievements and contributions to learning at McGill are truly outstanding.

This unique form of recognition brings with it a monetary award. Recipients may also be invited to deliver a public lecture on a topic related to teaching, and/or be invited to speak at convocation.

Attributes and Criteria

Competition for this Award is open to all current McGill instructional and academic staff, of any rank, inclusive of non tenure-track instructors and all others who teach in traditional or non-traditional programs at McGill. Nominees will have **an overall total of 25 years university teaching experience comprising a significant commitment to McGill. Faculty members can be awarded this prize only once. Nominees will also:**

- Demonstrate exceptional leadership and vision in the advancement of teaching and learning
- Demonstrate extraordinary commitment and enthusiasm for students and their learning
- Personify excellence and serve as role models for others teaching at the University
- Promote students' active engagement in learning by bringing the findings, methods and/or processes of cutting-edge research/scholarship into their classes and coursework
- Have made a career-long contribution to the University community resulting in a significant and lasting impact on the learning environment.

Generally only one Lifetime Achievement Award for Leadership in Learning will be granted per year. However, in exceptional circumstances (for example the pending retirement of certain outstanding candidates) more than one award may be presented in a given year.

Each Nomination Package should include:

1. **Table of contents**

2. **Curriculum vitae of the candidate**

3. **A statement** provided by the candidate, summarizing their philosophy about learning and teaching, and describing how their assumptions about learning may have changed or evolved over time. They might identify measures they have taken to develop, motivate and empower students in the learning process. This statement can facilitate the Committee's interpretation of the rest of the dossier.

4. **Evidence of Leadership in Learning** might include a combination of some of the following:
   a) Up to four (4) letters from former students, colleagues, Department Chairs, Faculty Deans or other persons in a position to comment on the following attributes of the nominee.
      - leadership in support of inquiry based learning
      - development and enhancement of academic learning environments
      - contributions to the teaching and learning community
   b) Leadership in projects aimed at enhancing learning environments, programs and curricula, within or across disciplines
   c) Innovation in curriculum design and the use of technology to facilitate students' learning during and beyond lectures
   d) Organizing or facilitating seminars, workshops or conferences on teaching and learning

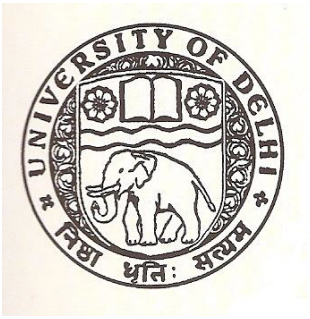
Once a dossier is submitted, no additional materials will be added to the file.

Approved by APC, 30th April 2009

D08-67 APPENDIX B

MEMORANDUM OF UNDERSTANDING

JOINTLY AWARDED PHD DEGREE



Terminology: International Jointly Awarded PhD Degree

A **jointly awarded PhD** is a qualification conferred upon a student on completion of a collaborative programme established by the partner institutions.

It is characterised by:

- Meeting the academic requirements of both universities
- Agreement regarding a lead university
- Joint supervision
- A single degree awarded for one PhD thesis
- Parchment(s) issued which indicate that there has been joint supervision

The Universitas 21 Universities of **Melbourne, Queensland, McGill, British Columbia, Hong Kong, Delhi, University College Dublin, Auckland, Birmingham, Nottingham, Glasgow, Edinburgh and Virginia, the 'Participating Universities',** are committed to the development of a scheme for the establishment of **Joint PhD** degree programmes.

Each U21 collaborative student programme established under the terms of this MOU will be the subject of a separate **Memorandum of Agreement** entered into between the institutions concerned. Specific items for inclusion or detailed clarification in the Memoranda of Agreement between partner institutions would include Articles 3-12 of the 13 Articles of this Memorandum of Understanding:

Article 1:
The collaborating institutions will jointly award a single PhD degree to a student who participates in a collaborative programme involving the collaborative U21 institutions.

Article 2:
When appropriate, this Memorandum of Understanding could be extended to U21 universities beyond the Participating Universities.

Article 3:

For each student accepted for study on a joint PhD programme, one of the collaborating institutions will be designated as the **lead university** responsible for overall administration.

Article 4:

Each institution will provide at least one supervisor or a higher minimum number if local regulations so require. All supervisors should hold actual or virtual joint meetings with the student as defined in the **Memorandum of Agreement**.

Article 5:

Each collaborating institution agrees to allow a student enrolled for study in a joint PhD program to have the same level of access to facilities enjoyed by other students enrolled at that institution.

Article 6:

Each of the institutions involved must arrange for the admission of the student in accordance with their own procedures. Normally joint PhD programme arrangements should be established at the outset. An individual **Memorandum of Agreement** covering each student's research and studies must be completed and approved by both supervisors, the student and a designated authorised university signatory.

Article 7:

The financial arrangements between collaborating institutions for tuition fees, student support and examinations should be stated in the **Memorandum of Agreement** in each specific case.

Article 8:

Duration of research and study for the PhD will normally be not less than three years full time equivalent. Departure from this normal duration would be specified in the **Memorandum of Agreement**.

Article 9:

Examination procedures will be agreed by the two institutions and will be stated in the **Memorandum of Agreement**.

Article 10:

Issues of Intellectual Property Rights should explicitly be dealt with in the student-specific **Memoranda of Agreement** between collaborating institutions.

Article 11:

The thesis will normally be written in a language that meets the requirements of the lead institution and where appropriate will include a substantial summary written in the language of the other institution (where there is more than one language of study between the two universities). Departure from this normal approach would be specified in the **Memorandum of Agreement**.

Article 12:

Normally, graduating students will be awarded their degree at a graduation ceremony at the lead university. The degree parchment(s) will clearly reflect the joint nature of the award. Both institutions will be entitled to include details of successful graduands in their alumni databases.

Article 13:

Participating universities may give no less than one (1) year's notice of their intention to cease participation in future programmes of Joint PhD study, providing there are no students currently enrolled at any other U21 university pursuing a Jointly Awarded PhD with that university. Should there be a student currently still enrolled and studying, the member wishing to no longer participate in future programmes of Jointly Awarded PhD study agrees to time its withdrawal from the programme only after that student has successfully completed their study.

SIGNATURES

This Memorandum of Understanding is established in ? original copies written in English all being equally valid. One copy will be kept by the secretariat of Universitas 21 currently based at the University of Birmingham.

Signed in Korea on 22 May 2009 by:

Etc.

Academic Program Reviews 2004-2008

Final Program Review Summary Sheets –Faculty of Arts

Social Sciences programs

B.A. (Bachelor of Arts) programs in: Anthropology, Economics, Political Science, Sociology
B.S.W. (Bachelor of Social Work) program
M.A. (Master of Arts) programs in: Anthropology, Economics, Political Science, Sociology
M.S.W. (Master of Social Work) program
Ph.D. (Doctor of Philosophy) programs in: Anthropology, Economics, Political Science, Sociology, Social Work

Program Study Group Members:

Marc Angenot (French –PSG Chair)
Nathalie Cooke, Associate Dean of Research & Graduate Studies – FRG Representative for Graduate report
Mary MacKinnon, Associate Dean, Academic Administration and Oversight – FRG Representative for Undergraduate report
Michael Bisson (Anthropology)
Donald Von Eschen (Sociology)
Catherine Lu (Political Science)
Christopher Green (Economics)
Wendy Thomson (School of Social Work)
Hilary Papineau, Undergraduate Student Representative
Magali Girard, Graduate Student Representative

Strengths

- High-quality social science programs at undergraduate and graduate level despite severe resource constraints; large numbers of students especially at undergraduate level
- Impressive faculty roster
- Talented and unusually international student body
- Strong connection to interdisciplinary programs
- Impressive record of grantsmanship

Recommendations

- Offer undergraduate seminar experience on a routine basis
- Improve advising, mentoring and guidance at undergraduate and graduate levels
- Improve graduate funding
- Enhance graduate student space
- Further enhance connection to interdisciplinary programs

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Humanities programs
B.A. (Bachelor of Arts) programs in: Art History & Communication Studies, Classics, English, French Language & Literature, History, History & Philosophy of Science, Linguistics, Philosophy
M.A. (Master of Arts) programs in: Art History & Communication Studies, English, French Language & Literature, History, Linguistics, Philosophy
Ph.D. (Doctor of Philosophy) programs in: Art History & Communication Studies, English, French Language & Literature, History, Linguistics, Philosophy

Program Study Group Members:

Bill Watson (Economics – PSG Chair)
Catherine LeGrand (History)
David Davies (Philosophy)
Jon Nissenbaum (Linguistics)
David Crowley (Art History and Communication Studies)
Miranda Hickman (English)
Gillian Lane-Mercier (French Language and Literature)
Cornelius Borck (History and Philosophy of Science)
Enrica Quaroni, Associate Dean, Student Affairs - FRG Representative
Tyler Cohen, Undergraduate Student Representative
Lindsay Holmgren, Graduate Student Representative

Strengths

- Programs are international in many senses (areas of study, origins of faculty and students, opportunities to study abroad)
- Great diversity of approaches to studying each discipline
- Benefits from location in Montreal exploited in several disciplines
- Strong emphasis on interdisciplinarity at all levels

Recommendations

- Emphasize improving writing and other communication skills in undergraduate courses
- Obtain more space for graduate students and research projects
- Obtain more funding for graduate students
- Improve advising, mentoring and guidance at undergraduate and graduate levels

April 2009

Languages and Culture programs
B.A. (Bachelor of Arts) programs in: East Asian Studies, English & French Language Centre, German Studies, Hispanic Studies, Islamic Studies, Italian Studies, Russian & Slavic Studies
M.A. (Master of Arts) programs in: East Asian Studies, German Studies, Hispanic Studies, Islamic Studies, Italian Studies, Russian & Slavic Studies
Ph.D. (Doctor of Philosophy) programs in: East Asian Studies, German Studies, Hispanic Studies, Islamic Studies, Italian Studies, Russian & Slavic Studies

Program Study Group Members:

Will Straw (Art History & Communications Studies - PSG Chair)
Philip Oxhorn (CDAS – FRG Representative)
Andrew Piper (German Studies)
Amanda Holmes (Hispanic Studies)
Eugenio Bolongaro (Italian Studies)
Laura Beraha (Russian and Slavic Studies)
Robin Yates (East Asian Studies)
Eugene Orenstein (Jewish Studies)
Rula Abisaad (Islamic Studies)
Jean-Yves Richard (English and French Language Centre)
Emma Kadar-Penner, Undergraduate Student Representative

Strengths
- Strong sense of purpose, commitment to the institution, and scholarly and pedagogical accomplishments
- Departments have adapted well to expansion in disciplinary scope and complexity in the context of static or declining resources
- Resourceful and creative faculty
- External reviewer rates programs as good to excellent
- Strong potential to develop new interdisciplinary configurations
- growth in film, media, and cultural studies approaches in recent years presents opportunities for collaboration within and beyond this group of departments
- commitment to language training and study of literature and culture in original language

Recommendations
- Consider strategic reinvestments in languages and culture by Faculty of Arts
- Conduct wide-ranging conversation among departments to discuss joint hires within the Language and Culture group or outside it
- Reduce financial and administrative barriers limiting the development of international exchange programs
- Explore a more nimble and collaborative approach to the creation of minor programs by the Language and Culture units
- Address uncertainties and weaknesses of the current graduate admissions and funding policies
- Explore fully the possibilities of collaborative teaching (of methodological and theoretical courses) at the graduate level
- Improve library holdings in language and culture areas
- Develop undergraduate programs in Islamic Studies

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Interdisciplinary programs
B.A. (Bachelor of Arts) Major and Minor programs in: African Studies, Canadian Ethnic Studies, Canadian Studies, Humanistic Studies, International Development Studies, Latin American & Caribbean Studies, Middle East Studies, North American Studies, Quebec Studies, Social Studies of Medicine, Women's Studies

Program Study Group Members:

Stuart Soroka (Department of Political Science - PSG Chair)
Glyne Piggott (Department of Linguistics - FRG Representative)
Daviken Studnicki-Gizbert (IDS)
Robert Myles (Humanistic Studies)
Michael Smith (Industrial Relations)
Elizabeth Elbourne (African Studies/Women's Studies)
Jose Jouve-Martin (Latin American & Caribbean Studies)
Laila Parsons (Middle East Studies)
Hélène Poulin Mignault (Québec Studies)
Giovani Burgos (Canadian Ethnic Studies)
Antonia Maioni (Canadian Studies)
Thomas Schlich (Social Studies of Medicine)
Thomas Velk (North American Studies)
Yahel Carmon, Undergraduate Student Representative

Strengths
- Broad array of lively and exciting interdisciplinary programs
- Well functioning programs have:
- Highly committed and dedicated faculty
- Highly motivated students
- Access to external funding
- Affiliation with centers, institutes, departments, or scholarly networks that constitute a broader intellectual community into which the degree programs have been inserted

Recommendations
- Enhance intellectual coherence through affiliation with departments, centers, or institutes
- Review listed courses annually to ensure that they remain available and relevant
- Identify core courses from its component disciplines
- List departmental courses earlier
- Include at least one 3-credit integrative foundation course and one 3-credit integrative capstone course
- Improve tracking and assessment of student performance
- Enhance advising

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Religious Studies
B.A. (Bachelor of Arts) Major programs in: Jewish Studies, Philosophy of Western Religions, Religious Studies
B.A. (Bachelor of Arts) Minor program in: Catholic Studies

Program Study Group Members:

Kristin Norget (Anthropology – PSG Chair)
Lawrence Kaplan (Jewish Studies)
Uner Turgay (Islamic Studies)
Ian Henderson (Religious Studies)
Filippo Sabetti (Catholic Studies)
Robert Wisnovsky (Philosophy and Western Religions)
Sarah Stroud (Philosophy – FRG Representative)
Corey Shefman, Undergraduate Student Representative

Strengths
- Wide range of pedagogies
- Diversity of perspectives within rich framework
- Good integration of research into learning
- Broad range of courses in study of religion and impact on society, politics and culture
- Excellence of the facilities, including the library

Recommendations
- Review courses and programs that have consistently low enrolments
- Maintain consistent standards across the Faculty
- Develop new mechanisms to consolidate the resources dedicated to all religious studies
- Establish policies to ensure that a maximum number of introductory, large and capstone courses be taught by tenure-stream faculty
- Explore new faculty appointments that bridge units within Arts to enhance interdisciplinarity

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Other Faculties programs (Education, Management, Music)
B.A. (Bachelor of Arts) Joint Honours program in Economics and Finance
B.A. (Bachelor of Arts) Major program in Music for Arts
B.A. (Bachelor of Arts) Minor programs in: Education for Arts students, Education Psychology for Arts students
B.A. (Bachelor of Arts) Minor program in Management

Program Study Group Members:

John Kurien (Economics – PSG Chair)
Bruce Minorgan (Music)
Kate LeMaistre (Education)
Jan Jorgenson (Management)
Enrica Quaroni, Associate Dean, Student Affairs, FRG Representative
Amber Irwin, Undergraduate Student Representative

Strengths

- High level of interdepartmental and cross-faculty cooperation, relative to other North American universities
- Some programs allow an element of career preparation for Arts students, or at least an understanding of applications of Arts education

Recommendations

- Develop interfaculty minor concentrations and interfaculty programs
- Improve advising

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Faculty of Science programs

B.A. (Bachelor of Arts) Major and Minor programs in: Computer Science, Geography, Mathematics & Statistics, Psychology

Program Study Group Members:

James McGilvray (Department of Philosophy – PSG Chair)
Stephen Drury (Mathematics)
Bettina Kemme (Computer Science)
Robert Pihl (Psychology)
Colin Chapman (MSE)
Glyne Piggott (Department of Linguistics – FRG Representative)
Geoffrey Hall, Undergraduate Representative

Strengths

- Arts students in Science programs are as integrated within each department as Science students
- Combinations of major and minor concentrations allow Arts students to complete similar sets of courses to students in a Science Major
- Overall quality of programs high in terms of curriculum, teaching staff, and students

Recommendations

- Address very high student-faculty ratio in Psychology
- Improve advising
- Provide better training for teaching assistants
- Encourage more involvement of undergraduates in research activities

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Multi-Track B.A. Program

Program Study Group Members:

Phil Oxhorn (Political Science – PSG Chair)
Grace Fong (East Asian Studies)
Ken Borris (English)
Faith Wallis (History)
Jim McGilvray (Philosophy)

Strengths

- Flexibility of programs allows much student choice of double majors and minors
- All students complete at least two programs, so multi-disciplinarity built into the degree structure
- Multi-track system functioning well

Recommendations

- Review of inter-disciplinary programs needed (ID program as a second major concentration very different from ID program as only major concentration)
- Improve advising / mentoring of students about combinations of major and minor concentrations and elective courses
- Consider more closely the needs of language programs

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Arts Legacy program

Program Review Members

Sue Laver (English & French Language Centre – PSG Chair)
Griet Vankeerberghen (East Asian Studies)
Michael Cowan (German Studies)
Wes Folkerth (English)
Lauren Berkley, Student Representative

Strengths

- Provides excellent first-year experience for a small cohort of U0 students
- International, intercultural, "global" focus of the program is justly claimed to be one of its greatest strengths
- Dedicated cadre of professors and lecturers
- Successfully created sense of community among students
- Unique performance component
- Innovative pedagogical perspectives

Recommendations

- Examine ways to incorporate CEGEP graduates into the program
- Reduce program complexity
- Consider reducing number of credits in program
- Ensure adequate administrative support
- Address attrition issues

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Academic Program Reviews 2004-2008

Final Program Review Summary Sheets –Faculty of Engineering

Architecture programs
B.Sc. Architecture
M.Arch (Professional) Non-Thesis
M.Arch (Post-Professional) Non-Thesis
Ph.D. (Architecture)
Graduate Diploma in Housing

Program Study Group Members:

Annmarie Adams (Professor, School of Architecture; PSG Chair)
Vikram Bhatt (Professor, School of Architecture)
David Covo (Professor, School of Architecture)
Adrian Sheppard (Professor, School of Architecture)
Raphael Fischler (Associate Professor, School of Urban Planning)

Strengths:

- The school has a strong sense of community, and is highly cohesive and productive.
- McGill's Ph.D. in Architecture, is the most substantial, rigorous, and high profile Ph.D. program in Canada. The program has potential to develop even higher levels of scholarship and innovation in history and theory, and in housing, along with other areas such as sustainability, urban design, health care, new materials, and extreme environments.
- The B.Sc. program is able to attract well-qualified, high-performing students. Considerable emphasis on design and in fulfilling professional CACB requirements in the curriculum makes this undergraduate, pre-professional program in architecture unique and formidable among the ten schools of architecture in Canada.
- The M.Arch. (professional) program is a thriving trans-cultural lab, has enormous post-professional presence and capacity, and has intrinsic connections to the global condition.
- For its relatively small size, the School has a large, attractive range of opportunities for post-professional, graduate studies in architecture. The range includes minimum cost and affordable housing, housing in developing nations, health care, history/theory/criticism, urban design, and other architectural design-related topics. It is a strong pool from which to draw Ph.D. students.
- The Blackader-Lauterman Library is a key symbol and resource for the School and the Faculty, and is particularly important for the Ph.D. program.

Recommendations for Improvement:

- Increase the length of the M.Arch I program to provide for more specialization, additional "critical thinking" courses, and to harmonize with the post-professional M.Arch. II program.
- Continue to develop the Sheff Visiting Professorship that was recently established.
- Enhance student recruitment and, with the Faculty, increase the number of fellowships and scholarships available to Ph.D. bound M.Arch II students.
- Review the role of adjunct instructors in the delivery of the curriculum.
- Make closer ties to the other units in the faculty, especially to enhance the teaching of innovative design. The information technology aspects of the program should be reviewed.
- Seek additional financial and human support, such as for endowed chairs, for leading edge design teaching that will engage the students with key architects and theorists from Quebec, Canada, and the international community.
- Develop a plan for upgrading all computer workstations and assess the state of the infra-structure in Architecture, making closer connections to the Faculty computing facilities.
- Form a school task-force to review the B.Sc. curriculum, with special regard to its relation to the M.Arch 1 professional program.
- Explore expansion of the current pool of visiting critics and external reviewers.
- Review the adequacy of space available to graduate students.

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Chemical Engineering programs
B.Eng. (Bachelor of Engineering), Chemical Engineering
M.Eng. (Master of Engineering) Thesis, Chemical Engineering
M.Eng. (Master of Engineering) Project, Chemical Engineering
Ph.D. (Doctor of Philosophy), Chemical Engineering

Program Study Group Members:

Richard Munz (Associate Professor, Department of Chemical Engineering; PSG Chair)
Milan Maric (Assistant Professor, Department of Chemical Engineering)
Viviane Yargeau (Assistant Professor, Department of Chemical Engineering)
George Demopoulos (Professor, Department of Mining and Materials Engineering)

Strengths:

- The department is cohesive, productive, and committed to provide excellence in teaching (both undergraduate and graduate) and research. An excellent *esprit de corps* permeates the faculty, staff and student body.
- A strong group of new faculty covering research and teaching in critical new areas of chemical engineering including advanced materials, environmental engineering, and bioengineering as well as the more traditional core areas of chemical engineering.
- Competitive and well-regarded graduate and undergraduate programs that attract excellent students, consistent with long range plans.
- Excellent laboratory and technical support.
- Helpful, committed and effective support staff.
- Appropriate attention to safety issues.
- High priority to innovation and quality of undergraduate teaching.
- Availability of minors is well received, especially for life-science-related themes.
- Time-in-program averages at both the Master's and doctoral levels appear to be lower than for most comparable programs.

Recommendations for Improvement:

- Reduce the incoming class size in keeping with the human and physical resources of the Department, or these resources should be increased.
- Make special efforts to increase the complement of senior adjunct academic staff to maintain and enhance the special connection between our students and industry.
- Broaden the number of technical electives to ensure exposure to related areas, including those outside chemical engineering.
- Improve the common room for undergraduates and meeting rooms for design course student teams.
- Upgrade and expand computer facilities.

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Civil Engineering and Applied Mechanics programs
B.Eng. (Bachelor of Engineering), Civil Engineering
M.Eng. (Master of Engineering) Thesis, Civil Engineering
M.Eng. (Master of Engineering) Project, Civil Engineering
M.Eng. (Master of Engineering) Project, Environmental Engineering
M.Sc. (Master of Science) Thesis, Civil Engineering
Ph.D. (Doctor of Philosophy), Civil Engineering

Program Study Group Members:

V. Chu (Professor, Department of Civil Engineering and Applied Mechanics; PSG Chair)
L. Chouinard (Associate Professor, Department of Civil Engineering and Applied Mechanics)
G. McClure (Associate Professor, Department of Civil Engineering and Applied Mechanics)
M. S. Mirza (Professor, Department of Civil Engineering and Applied Mechanics)
D. Mitchell (Professor, Department of Civil Engineering and Applied Mechanics)
J. Nicell (Professor, Department of Civil Engineering and Applied Mechanics)
V.T.V. Nguyen (Professor, Department of Civil Engineering and Applied Mechanics)
Y. Shao (Associate Professor, Department of Civil Engineering and Applied Mechanics)
S.C. Shrivastava (Professor, Department of Civil Engineering and Applied Mechanics)
D. Carré (Ph.D. Student, Department of Civil Engineering and Applied Mechanics)
J. Finch (Professor, Department of Mining and Materials Engineering)

Strengths:

- The Department has a dedicated academic, technical and support staff with strong and effective leadership.
- Student morale is also very high. All of the degree programs are of high quality and the Department is clearly able to attract first-rate students.
- Teaching methodologies used in departmental courses are on the leading edge of current instructional techniques in Engineering.
- Excellent research programs are being carried out and the department is attracting top PhD students
- The level of student satisfaction with the programs is very high. Students at all levels are pleased with the level of support from clerical and technical staff, and with the availability of the professors for both advising and course-related matters.
- The student body is the most diverse of any Civil Engineering program in Canada in terms of both gender and geographic origin.

Recommendations for Improvements:

- Increase the space for students in the undergraduate teaching labs.
- Encourage fast-tracking of qualified MEng students into the PhD program and also encourage non-thesis (project) students to transfer into the thesis program.
- Reduce time-to-graduation for PhD students to an average of 4 years.
- Additional office space is required for new hires.

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Electrical & Computer Engineering programs
B.Eng. (Bachelor of Engineering), Electrical Engineering
B.Eng. (Bachelor of Engineering) Honours, Electrical Engineering
B.Eng. (Bachelor of Engineering), Computer Engineering
B.S.E. (Bachelor of Software Engineering)
M.Eng. (Master of Engineering) Thesis, Electrical Engineering
M.Eng. (Master of Engineering) Thesis, Computational Science and Engineering
M.Eng. (Master of Engineering) Non-Thesis, Electrical Engineering
Ph.D. (Doctor of Philosophy), Electrical Engineering

Program Study Group Members:

Jon Webb (Professor, Department of Electrical and Computer Engineering; PSG Chair)
Benoit Champagne (Associate Professor, Department of Electrical and Computer Engineering)
Ioannis Psaromiligkos (Associate Professor, Department of Electrical and Computer Engineering)
Zeljko Zilic (Associate Professor, Department of Electrical and Computer Engineering)
Stuart Price (Professor, Department of Mechanical Engineering)

Strengths:

- In spring 2008 software engineering was accredited for the first time for 3 years.
- Overall, the undergraduate program offerings represent excellent quality, diversity, value and flexibility. The Electrical Engineering (Honours) program is unique in North America, placing McGill in an enviable position and resulting in a positive image of both the department and of the Faculty of Engineering.
- The teaching staff is highly dedicated, with the vast majority of courses (around 90%) taught by tenured or tenure-track faculty.
- The Department faculty has often received the highest McGill teaching awards, such as three McGill Principal's Teaching Awards (out of a total of 15 given) as well as national and international awards, such as IEEE teaching activities awards and an IEEE LEOS Distinguished Lecturer. It is the only ECE Department in Canada that has received two Wighton Fellowships awarded by the National Council of the Deans of Engineering and Applied Science (NCDEAS) for laboratory course teaching.
- Classroom and laboratory facilities found at the new Trottier Building are outstanding, as viewed both nationally and internationally.
- The graduate program in the Department of Electrical and Computer Engineering is outstanding. The mix of complementary and interdisciplinary research areas is quite healthy and is generally aligned with directions with significant opportunity for growth. In particular there is a solid base to grow in the strategic areas of nanotechnology, biological systems, and renewable energy.
- The professors, staff and students enjoy a productive, collegial working environment and there is excellent multi- and inter-disciplinary interaction with other departments, most especially with the school of Computer Science.

Recommendations for Improvement:

- Extend the mandate of the departmental college liaison committee to more generally develop and implement plans to increase enrolment of high quality students.
- Review evaluation procedures in the curriculum to increase emphasis on oral and written presentations, teamwork and other professional skills. This can include having industrial experts give lectures on presentation design, teamwork, and project management in core courses.
- Develop a plan for maintaining teaching lab facilities.
- Increase funding for M.Eng. students who are likely to continue on to Ph.D studies.
- Review the syllabi for graduate level courses to ensure that the workload is commensurate with the allotted credits.
- Better document and publicize the fast-track procedure to the PhD program.
- Consider ways of achieving two years for completion of the M.Eng. thesis program.

Mechanical Engineering programs
B.Eng. (Bachelor of Engineering), Mechanical Engineering
B.Eng. (Bachelor of Engineering) Honours, Mechanical Engineering
M.Eng. (Master of Engineering) Thesis, Mechanical Engineering
M.Eng. (Master of Engineering) Thesis, Computational Science and Engineering
M.Eng. (Master of Engineering) Non-Thesis, Mechanical Engineering
M.Eng. (Master of Engineering) Non-Thesis, Aerospace Engineering
M.Sc. (Master of Science) Thesis, Mechanical Engineering
Ph.D. (Doctor of Philosophy), Mechanical Engineering
MMM (Master in Manufacturing Management)

Program Study Group Members:

Jorge Angeles (Professor, Department of Mechanical Engineering; PSG Chair)
Larry Lessard (Associate Professor, Department of Mechanical Engineering)
Meyer Nahon (Associate Professor, Department of Mechanical Engineering)
Arun Misra (Professor, Department of Mechanical Engineering)
Jon Webb (Professor, Department of Electrical and Computer Engineering)

Strengths:

- The current demand for Mechanical Engineering is good, so that the cutoff grade for entrance into the B.Eng. program is quite high. Very few people drop out of the program; those who drop are quickly replaced by transfer students.
- The B.Eng. program has, by national standards, a very high percentage (~20%) of women in the program. These students are amongst the best in the program.
- The percentage of foreign students in the B.Eng. program is amongst the highest in Canada, at 15%.
- The M.Eng. program is very successful, attracting some of our best undergraduate students. Graduates of the program are highly employable in a variety of settings.
- There has been a significant increase in the number of graduate courses being offered, as new professors are hired.

Recommendations for Improvement:

- Develop a plan for maintaining and updating teaching laboratories and for improving the quality of design studio and project space.
- Review the Teaching Assistant allocation policy and teaching assistant duties and develop a plan to improve the teaching skills of Teaching Assistants.
- Reassess general advising of students, focusing on training of academic staff for advising and other improvements as appropriate.
- Incorporate alternate methods of instruction and evaluation in courses, and facilitate academic staff attendance at teaching and learning workshops.
- Increase the number of students in the Honours program.
- Review the program curriculum with the goal of improving connections between the lab and lecture courses, and consider reduction of the number or frequency of courses offered by adjunct staff.
- Provide space for grad student activities and encourage regular social events bringing together graduate students and staff members.
- Promote the M.Eng. program to the B.Eng. Honours students, with various events and outreach activities, with the goal of recruiting more of these students into the program.
- Be more aggressive in fast-tracking of qualified M.Eng. students into the Ph.D. program, and promote the process more widely to students and professors.
- Review procedures and requirements for the PhD program, and consider guidelines for the preliminary exam. Consider institution of a common committee for the preliminary exam and final defense, which will follow the progress of the student throughout the course of the degree.

Mining and Materials Engineering programs
B.Eng. (Bachelor of Engineering), Materials Engineering Co-op Program
B.Eng. (Bachelor of Engineering), Mining Engineering Co-op Program
M.Eng. (Master of Engineering) Thesis, Mining and Materials Engineering
M.Eng. (Master of Engineering) Non-Thesis, Mining and Materials Engineering
M.Sc. (Master of Science) Thesis, Mining and Materials Engineering
Ph.D. (Doctor of Philosophy), Mining and Materials Engineering

Program Study Group Members:

Raynald Gauvin (Professor, Department of Mining and Materials Engineering; PSG Chair)
Mainul Hasan (Associate Professor, Department of Mining and Materials Engineering)
Hani Mitri (Professor, Department of Mining and Materials Engineering)
Jean-Luc Meunier (Associate Professor, Department of Chemical Engineering)

Strengths:

- The Materials Engineering program has enjoyed an outstanding international reputation over the years and the Mining Engineering program is one of the strongest mining programs in the country. The Materials Engineering undergraduate program at McGill is very strong and unique in the Canadian University context, owing at least partially to the strengths of the metals group.
- The ratio of graduate students per professor is quite high in the Materials Engineering area. The *per capita* level of research funding in the department is extremely high.
- The mandatory co-op programs are unique in the Faculty and popular with students.
- The co-op B.Eng. programs provide early integration into the work force upon graduation due to increased marketability from job experiences, professionalism acquired throughout the program, and the development of a substantial network of contacts prior to graduation.
- The quality of the graduate programs can be can be seen in three factors: the interactional style of many of the professors; the high level of research funding; and, the outstanding quality of graduate students, many of whom receive their own external scholarships from a variety of sources.
- The undergraduate and graduate programs are complementary in that a student graduating from both programs possesses both highly relevant practical knowledge and strong specialization in the sector of their choice.
- The Materials Engineering program is going through a renewal and rejuvenation, with hiring of professors in three new and evolving areas: biomaterials; aerospace materials, thin films and coatings; and computational materials science.

Recommendations for Improvement:

- Consider implementing a core course requirement for Ph.D. students.
- Increase the number of graduate courses offered.
- Increase financial support for Ph.D. students.
- Attract high quality M.Eng. students who are likely to continue on to do PhD study.
- Revisit the idea of making the coop aspect of the programs optional, and weigh fully all of the advantages and disadvantages of a fully mandatory coop program.
- Make efforts to recruit more undergraduate students. This will include increased outreach to CEGEPs. Departmental recruiting activities will pro-actively target CEGEP students from small Quebec towns where the mining and metallurgy industry is located.
- Increase the number of technical complementary credits in the Mining program.

April 2009

Urban Planning programs
M.U.P. (Master of Urban Planning)
Ph.D. (Doctor of Philosophy) Urban Planning
Ph.D. (Doctor of Philosophy) Policy and Design

Program Study Group Members:

Raphael Fischler (Associate Professor, School of Urban Planning; PSG Chair)
Lisa Bornstein (Associate Professor, School of Urban Planning)
Jeanne Wolfe (Professor Emerita, School of Urban Planning)

Strengths:

- Urban planning at McGill is a North American leader in university-community partnerships, in classroom- and research-based community engagement, in studio-based planning education, and in international development.
- The school enjoys a strong reputation in the international community of planning researchers.
- The school is characterized by intimacy and an *esprit de corps* among students and faculty that emerges from a keen sense of shared missions in research, teaching, and service.
- Graduates of the Master of Urban Planning have made significant contributions to the field, and the quality of the program is well recognized and respected.
- The M.U.P. program is studio-based, community-connected and collaborative. The studio approach allows planning to be seen as a whole and enables students to "learn by doing". These three features in combination with McGill's prestige as an institution put the school in a unique position to advance and become a leader in North America for the studio-based model of planning education.
- Internships are an important component of the program. They are aligned with the philosophy of engagement with the community and students consider it an important aspect of their education.

Recommendations for Improvement:

- Redesign the Supervised Research Seminar and Supervised Research Project to make them more useful to students and professors alike (at the same time making for more timely completion and giving more opportunities for joint publications). The thesis nature of the work should be reduced, the sequencing reconsidered, and the completion times tightened.
- Provide courses in urban studies to other McGill units and fill gaps in its own course offerings by putting new courses on the books, for instance in urban policy, urban economics, and real-estate development.
- Emphasize more general principles of planning law, given the composition of the student population.
- Fine tune current offerings, emphasizing the studio-based context. It is suggested that the "intention, content, lessons, processes and products explored" in each of the three studios be more clearly articulated to prevent the temptation to add more elements which would be course-based.
- Improve placements for paid internships. Additional internship placements outside Quebec would assist in the language barrier, given that many students are not francophone.
- Establish a mentorship program
- Provide assistance with career planning
- Establish an alumni network.

Academic Program Reviews 2004-2008

Final Program Review Summary Sheets – Schulich School of Music

20 April 2009

The Schulich School of Music undertook eleven Academic Program Reviews across its two Departments, and with reference to CIRMMT, its interdisciplinary Research Centre. Program reviews were done by disciplinary Area, which allowed a broader and more interdisciplinary overview of research, teaching, and structural issues at both graduate and undergraduate levels. The School is currently completing a major reform of its undergraduate core curriculum that will result in changes to all programs, and will include the parallel actions of establishing a number of new Graduate Diploma programs in Performance and adjusting the direction of graduate degree programs in all Areas. This reform process anticipated and coincided with the Academic Program Review process and will incorporate most of its recommendations, including several which are already being implemented.

Department of Music Performance
Early Music
Jazz
Orchestral Instruments
Piano (Keyboard)
Voice/Opera/Choral

Department of Music Research
Composition
Musicology/Music History
Music Technology
Music Theory
Sound Recording
(Musicianship)

A number of common themes emerged from the Program Review process that identified needs that, if addressed, would allow the School to confirm and enhance its reputation as an international leader in the training of professional musicians in musical creation and performance and for humanities-based and scientific-technological research in music and sound. These include: (1) increase scholarship and fellowship support for students, (2) improve quality of website and recruitment activities, (3) complete technical facilities and expand certain types of specialized spaces, (4) sustain and enhance Music Library collections and various technical resources, (5) increase complement of FT staff and review balance of FT and PT staff, (6) grow visiting professor, master class, and guest lecturer programs, and (7) continue to expand our circle of influence and leadership role by hosting international and interdisciplinary conferences at McGill's Schulich School of Music.

Early Music programs
B.Mus. (Bachelor of Music)
L.Mus. (Licentiate in Music)
Artist Diploma
D.Mus. (Doctor of Philosophy)

Program Study Group Members:

Prof. Hank Knox, Early Music Associate Professor and Area Chair
Dr. Douglas Kirk, Early Music Instructor
Mr. Jason Moy, Student Representative

Strengths:

- Longest standing and only true *undergraduate* early music program in North America.
- Annual production of an Early Music Opera. No other university on the continent performs a baroque opera annually.
- Quality of community teaching resources, drawn from professional ensembles such as: Arion, Les Boréades, La Nef, etc. Montreal has a vibrant early music performance scene.
- Success of students in professional and academic pursuits in the local community and abroad.
- Strong relationship with Voice, Opera and Strings in particular, as well as Musicology. Collegiality with administration and between Areas that produces very effective results.
- Strong and growing collection of historical instruments (organ, harpsichord, fortepiano, strings, etc).

Recommendations for improvement:

- Open an additional position, preferably in baroque strings. Ideally, this would be a full-time, tenured position in order to attract a personality of international stature; a part-time position would only allow us to recruit someone living and working in Montreal.
- Establish a general Performance Practice seminar with a rotating specialty and explore the possibility of establishing a weekly Early Music seminar series or Early Music workshop.
- Further enhance dialogue with the Opera Area.
- Add courses in improvisation & ornamentation, recitative, diction, early opera scene class, baroque gesture and dance class, to be available to all Performance students.
- Improve funding for graduate students, to attract a full complement of Early Music instrumentation.
- Establish a website for the Area.

April 2009

Jazz programs
B.Mus. (Bachelor of Music)
L.Mus. (Licentiate in Music)
Artist Diploma
D.Mus. (Doctor of Music)

Program Study Group Members:

Prof. Jan Jarczyk, Jazz Associate Professor, Jazz Area Chair
Prof. Gordon Foote, Jazz Associate Professor
Prof. Joe Sullivan – Jazz Assistant Professor
Mr. Pierre François – Student Representative

Strengths:

- A well-deserved, long-standing international reputation as the pre-eminent Canadian university jazz program.
- One of the most diverse and interesting Jazz programs in North America, with a curriculum that is wide ranging and includes many elements of both classical and jazz traditions.
- A combo program that includes required performances in jazz clubs as part of the curriculum.
- A small and very selective Graduate Program in Jazz Studies.
- Internationally renowned big band program.
- Jazz students play an important role as ambassadors for Development and Alumni events through Gig Office bookings and McGill Jazz Orchestra recordings and tours.
- Strong arranging and composition component.
- Professional and artistic success of alumni (recordings, tours, arts grants and academic appointments).

Recommendations for improvement:

- Reduce the number of overall course requirements.
- Develop Jazz Area recruitment strategies and materials (brochures, posters, web site).
- Create more jazz specific scholarships.
- Re-establish on-campus performance venues.
- Augment library holdings of small group scores, big band scores, books, recordings and videos.
- Develop a mechanism for celebrating part-time faculty's ongoing contributions, including having more part-time negotiated slots available.
- Establish a Visiting Artist Series (already implemented).
- Add one more full-time position.
- Establish appropriate rehearsal space (larger spaces, continuing improvement of acoustic conditions).

April 2009

Orchestral Instruments programs
B.Mus. (Bachelor of Music)
L.Mus. (Licentiate in Music)
Artist Diploma
D.Mus. (Doctor of Music)

Program Study Group Members:

Prof. André Roy – String Assistant Professor, String Area Chair
Prof. Alain Cazes – Brass Assistant Professor
Mr. Normand Forget – Woodwind Instructor, Acting Woodwind Chair
Prof. Abe Kestenberg – Woodwind Associate Professor
Ms. Maria Pham – Undergraduate Student Representative
Mr. Marcin Swoboda – Graduate Student Representative

Strengths:

- Largest and most renowned Orchestral Training Program in Canada; has also positioned itself as one of the top in North America alongside schools such as the New England Conservatory, Juilliard, and the Curtis Institute.
- High proportion of graduating students gaining professional employment, participating in and winning international competitions.
- Award-winning recordings (Noah Greenberg Award, Grand Prix du Disque, Juno).
- Contemporary Music Ensemble (CME) / MusiMars; championing of new music opportunities; collaboration with Digital Composition Studio (DCS) and the Centre for Interdisciplinary Research in Music Media and Technology (CIRMMT).
- High calibre of string quartet training winning placement in international competitions
- Internationally recognized performers / teachers.
- Good program balance between academics and performance.
- Unique potential to develop performer-researchers due to presence of Music Research and CIRMMT.

Recommendations for improvement:

- Resolve the ongoing Brass hire and advertise for a full-time position in the Woodwind Area, in order to address the urgent need for two full-time hires. The gender imbalance is noted.
- Resolve the shortage of teaching studios, practice facilities and ensemble rooms.
- Revise large ensemble audition and assignment procedures; rehearsal duration and schedules; and re-examine the length and time-tabling of the concert periods.
- Implement more standard core repertoire in the McGill Symphony Orchestra to cover training needs and program fewer longer works.
- Develop a 3-year plan for ensembles (for repertoire coverage and continuity of training).
- Initiate reading sessions with student conductors and invited guest conductors and create an undergraduate orchestral excerpts class.
- Achieve a healthier rotation for String students in Large Ensembles to prevent injuries and overload.
- Develop an M.Mus. pedagogy option. Establish a one-year Graduate Diploma program.
- Develop instrument-specific and Area-specific funding support.
- Develop a professional website.

April 2009

Piano (Keyboard) Studies programs
B.Mus. (Bachelor of Music)
L.Mus. (Licentiate in Music)
Artist Diploma
D.Mus. (Doctor of Music)

Program Study Group Members:

Prof. Richard Raymond – Piano Associate Professor and Piano Area Chair
Mr. Thomas Davidson – Faculty Lecturer, Musicianship Area Chair
Prof. Kyoko Hashimoto – Piano Associate Professor
Prof. Sara Laimon – Piano Associate Professor
Prof. Tom Plaunt – Piano Associate Professor
Ms. Jacqueline Leung – Graduate Student Representative
Mr. Clive Chang – Undergraduate Student Representative

Strengths:

- Recent revitalization in Teaching Staff. Internationally recognized teachers with diverse strengths of specialization (solo, chamber, contemporary, early music, etc.).
- Numerous performance opportunities, including weekly recital schedule.
- Song Interpretation classes and other collaborative piano opportunities.

Recommendations for improvement:

- Create a new piano curriculum which should include (but be not limited to) a new Pedagogy course at the graduate level, greater opportunities for crossover experience with other Areas, an advanced Keyboard Lab for pianists in the Performance program as part of the Musicianship course, as well as quick study and piano literature courses.
- Create a new Honours Program in Piano Performance featuring enhanced credit weighting for solo performance and collaborative opportunities to attract and serve top applicants.
- Develop a Minor in Performance for qualified applicants.
- Expand collaborative keyboard opportunities and establish a thriving chamber music program for pianists.
- Expand the number of graduate teaching assistantships to allow McGill to be more competitive.
- Create a plan for the regular purchase and maintenance of new instruments.
- Provide more rehearsal studios and practice rooms for the exclusive use of piano students.
- Increase interaction among staff members, including part-time staff, within and beyond Area, by creating repertoire specialization modules in performance courses.
- Organize more performing opportunities for non-major students.
- Develop an undergraduate Minor in Performance and performance opportunities for graduate students in other Areas.
- Increase piano specific scholarship funding especially for graduate students.
- Create a professional website.

April 2009

Voice/Opera/Choral programs
B.Mus. (Bachelor of Music)
L.Mus. (Licentiate in Music)
Artist Diploma
D.Mus. (Doctor of Music)

Program Study Group Members:

Prof. Valerie Kinslow – Voice P-T Assistant Professor, Voice Area Chair
Prof. Stefano Algieri – Voice Assistant Professor
Prof. Hank Knox – Early Music Associate Professor
Prof. Joanne Kolomyjec – Voice P-T Assistant Professor
Prof. Julian Wachner – Associate Professor, Choral Area Chair, Co-Director Opera McGill
Ms. Mallory McGrath – Undergraduate Student Representative
Ms. Lara Ciekiewicz – Graduate Student Representative

Strengths:

- Voice/Opera: graduates are quite successful in young artist programs, grants, competitions, and professional careers.
- Voice/Opera: potential for research in voice (pedagogy, health, respirology) through CIRMMT.
- Voice/Opera: comprehensive programming options.
- Opera: described as "the premiere program in Canada" by *Opera Canada Magazine*, 2002.
- Opera: Early Music Opera; strong early music program and unique vocal training opportunities.
- Opera: Wirth Opera Studio – dedicated opera space; fit out for acting, movement, singing, and eventually research.
- Choral: successful collaboration with other ensembles (inside and outside of McGill); wide range of repertoire offerings.
- Very dedicated cohort of full-time and part-time teaching staff (studio, coaching, accompanying, and production).

Recommendations for improvement:

- Improve course offerings by adding movement and acting classes (undergraduates in the first two years of the program).
- Offer a Song and Oratorio repertoire class.
- Improve physical space and equipment (practice rooms, broader access to studios for both teachers and coaches, complete Wirth Opera Studio fit-out, acquire equipment for surtitles, realize plan for new opera theatre).
- Discontinue the M.Mus. in Opera Performance and establish a Graduate Diploma.
- Add more scene work for less experienced students in Opera McGill.
- Establish a masterclass series with visiting professionals
- Pursue funding for scholarships, particularly at the graduate level.
- Develop an area website perhaps as a work study project.

April 2009

Composition Programs
B.Mus. (Bachelor of Music)
M.Mus. (Master of Music)
D.Mus. (Doctor of Music)
Ph.D. (Doctor of Philosophy)

Program Study Group Members:

Prof. Jean Lesage – Composition Assistant Professor; Composition Area Chair
Prof. Denys Bouliane – Composition Associate Professor
Prof. Brian Cherney – Composition Professor
Prof. Sean Ferguson – Composition Assistant Professor; Dir. Digital Composition Studio (DCS)
Prof. Chris Harman – Composition Assistant Professor
Prof. John Rea – Composition Professor
Ms. Melodie Adler – Student Representative

Strengths:

- Internationally recognized program known for its exceptional undergraduate training, global graduate applicant pool, tutorial-based training, and level of academic and professional achievement.
- Numerous outstanding performance opportunities for student compositions through Student Composer-in-Residence Program associated with McGill ensembles, and particularly via McGill Contemporary Music Ensemble (CME).
- MusiMars festival format provides international calibre composition/performance/ master class opportunities for students, staff, and community.
- Digital Composition Studio (DCS) reaffirms leadership position for creative applications in music technology, historically established through Electronic Music Studio (EMS), and now working closely with CIRMMT (Centre for Interdisciplinary Research in Music Media and Technology), Music Technology Area, and Performance Department.
- Strong interdisciplinary and research-creation grant support and community/international partnerships (SSHRC, FQRSC, NSERC, Langlois Foundation, CBC, EU Integra Project, etc.).

Recommendations for Improvement:

- Clarify undergraduate core curriculum reform and demands of revised Honours degree with possible undergraduate thesis component.
- Seek additional staff member fluent in both instrumental and electroacoustic composition; correct gender imbalance.
- Implement training in composition for film and visual media.
- Enhance visiting composer program.
- Improve physical infrastructure of Digital Composition Studio (DCS) and complete New Music Building -2 level spaces.
- Grow fellowship support to meet competition.
- Provide more teaching experience for graduate students.
- Enhance website promoting activities of School and Area.

April 2009

Musicology/Music History programs
B.Mus. (Bachelor of Music)
M.A. (Master of Arts)
Ph.D. (Doctor of Philosophy)

Program Study Group Members:

Prof. Tom Beghin – Musicology/Music History Associate Professor and Area Chair
Prof. Lisa Barg – Musicology/Music History P-T Assistant Professor
Prof. Julie Cumming – Musicology/Music History Associate Professor
Prof. Steven Huebner – Musicology/Music History Professor
Prof. Roe-Min Kok – Musicology/Music History Assistant Professor
Prof. Eleanor Stubley – Musicology/Music History Associate Professor; Dir. of Graduate Studies
Prof. Lloyd Whitesell – Musicology/Music History Assistant Professor
Ms. Sarah Gutsche-Miller – Graduate Student Representative
Ms. Victoria Nottingham-Novak – Undergraduate Student Representative

Strengths:

- Staff represents international excellence in scholarship and research over various areas of specialization and interdisciplinary approach.
- Academic renewal has infused program with new expertise, perspectives, and strengths in areas such as popular music, sexuality, gender, and performance practice, resulting in new levels of granted interdisciplinary research and new course initiatives.
- Offers undergraduate students in Music a wide range of courses that emphasize repertoire and basic narratives in scholarship, helping them to develop critical thinking and writing skills; offers students in Arts (through various Faculties) introduction to different musics and contexts: classical, jazz, popular, world.
- Program caters to graduate students' diversifying scholarly interests without sacrificing expectations for broad knowledge of the field and fluency in musical analysis that are characteristic strengths of the Area.
- Most Ph.D. graduates have gone on to professional careers in musicology and have shown real presence in the discipline.
- Excellent working relations with highly trained and dedicated Music Library staff to teach/support Research Methods, and provide research environment (space and support) for graduate students and staff.

Recommendations for Improvement:

- Create stronger sense of individualized attention and collective community among undergraduate music history majors through communications, advising, events, etc.
- Restructure undergraduate core curriculum with one-semester chronology-based music history survey, and subsequent semester of theme-oriented critical thinking approaches.
- Improve delivery of general and specialized courses to diverse undergraduate student body.
- Continue to support case for collection development in Music Library to fill certain lacunae and ensure sustainable funding.
- Adjust aspects of graduate program affecting time towards completion, such as placement tests, research methods, comprehensive exams, etc.
- Continue to work towards 'fully-funded' Ph.D. studies to become more competitive.

April 2009

Music Technology programs
B.Mus. (Bachelor of Music) [new minors structure]
M.A. (Master of Arts)
Ph.D. (Doctor of Philosophy)

Program Study Group Members:

Prof. Gary Scavone – Music Technology Assistant Professor and Area Chair
Prof. Marcelo Wanderley – Music Technology Assistant Professor
Ms. Eileen Tencate – Student Representative

Strengths:

- Strategic investment in staffing has quickly led to international reputation for excellence ("best in world"); each of five faculty members has leading international presence in area of expertise; attracts doctoral and post-doctoral applicants of highest international level.
- Coverage of Music Technology topics is broad and complementary, with each faculty member directing at least one research laboratory.
- Establishment of six Music Technology Labs from 2001-2005 with over $7M in research funding (provincial, federal, international, and private).
- Strong complementary integration with CIRMMT (Centre for Interdisciplinary Research in Music Media and Technology).
- Strong interdisciplinary collaboration across faculty and increasingly across university (notably in various science and engineering disciplines).
- Extensive and growing list of industry partnerships (Infusion Systems, Applied Acoustics, Yamaha, Electronic Arts, etc.) and participation in international projects (EU Enactive, Integra, Johns Hopkins, etc.).

Recommendations for Improvement:

- Create new program structure of two Minors (canceling Honours program):
    - Musical Application of Technology (MAT) for students interested in acquiring knowledge and skills in music and new media production, using technology for artistic purposes; and
    - Musical Science and Technology (MST) for students with mathematical, scientific, and computer programming experience interested in acquiring the skills and background for employment in the commercial audio technology sector and/or for subsequent graduate research study in this domain; also intended as pre-requisite package for students entering the M.A. program in Music Technology.
    - Revise content and structure of many undergraduate courses in conjunction with these changes. All proposed changes arise from overall review process.
- Improve sharing of technological resources and integration of teaching, learning, and research with Sound Recording Area and across Faculty (and CIRMMT); institute multi-year plan for renewal of software and hardware required for teaching.
- Develop further ways and means of contributing to music technological capabilities of undergraduate and graduate music students, including offering of training modules or mini-sessions.

April 2009

Music Theory programs
B.Mus. (Bachelor of Music)
M.A. (Master of Arts)
Ph.D. (Doctor of Philosophy)

Program Study Group Members

Prof. Christoph Neidhöfer – Theory Assistant Professor and Area Chair
Prof. Peter Schubert – Theory Associate Professor
Julie Pedneault – Student Representative

Strengths:

- Academic staff has outstanding research and teaching reputations and international presence in a broad range of areas of theoretical and analytical expertise.
- Program is renowned for strength of training provided to all music students at undergraduate level, and for quality of its highly successful graduate program and growing cohort.
- Most past doctoral graduates now hold positions at other institutions.
- Outstanding trajectory of graduate student teaching assistantship training provides superior professional preparation for teaching duties in academic environments.

Recommendations for Improvement:

- Strengthen collaborative links with other Areas, building on traditional connections with musicology and composition, expanding to include music technology and psychology; in particular, to confirm music-theoretical aspects of emerging leadership presence in music cognition.
- Hire an additional theorist specializing in areas not currently covered.
- Revise core curriculum and majors/honours streams to add breadth and flexibility to undergraduate and graduate course offerings (e.g., music cognition, pedagogy, popular music, gender studies, non-Western music, computer modeling, etc.).
- Revisit prerequisites for the M.A. and Ph.D programs in Theory (Schenker, mathematical modeling, proseminar, and research methods).
- Consider a core of required courses at the graduate level.
- Increase graduate and post-doctoral opportunities and levels of funding commensurate with reputational strengths of staff.
- Revisit requirements and/or means of theoretical and analytical training for students in other non-theory music graduate programs (in line with other North American graduate degree program curricula).

April 2009

Sound Recording programs
M.Mus. (Master of Music)
Ph.D. (Doctor of Philosophy)

Program Study Group Members:

Prof. William Martens – Sound Recording Associate Professor and Area Chair
Prof. Martha DeFrancisco – Sound Recording Associate Professor
Prof. René Quesnel – Sound Recording Assistant Professor
Prof. Wieslaw Woszczyk – Sound Recording Professor

Strengths:

- Internationally recognized *Tonmeister* program with 30 years of success in training professional HQP.
- Excellent placement of graduates in audio industry, academia, and research operations in North America and abroad.
- Significant research grant support for arts-technology disicipline (CFI2, New Ops, SSHRC, NSERC) to develop infrastructure as well as core and interdisciplinary research initiatives.
- State of the art infrastructure, with sound recording labs, studios, and live rooms (including the MMR multi-media room) with potential (not yet fully realized) for world leadership in production and research in music and sound.
- Strong industry and institutional liaisons (adjunct appointments, Audio Engineering Society, NASA, Bang and Olufsen, etc.)

Recommendations for improvement:

- Improve and enhance recording facilities.
- Clarify mission, goals, and objectives with regard to pure, applied, and interdisciplinary research.
- Work with Music Technology, Composition, and other Areas to address development of multi-media production, training, and research capacities.
- Develop and implement a D.Mus. in Sound Recording (complementary to the Ph.D program) with a focus on research-informed production.
- Develop further ways and means of contributing to sound recording capabilities of undergraduate and graduate music students, including offering of training modules or mini-sessions.

April 2009

Musicianship

(*Training component contained within all B.Mus. programs; not a separate program of study or specialization*)

Program Study Group Members:

Mr. Thomas Davidson – Musicianship Faculty Lecturer and Area Chair
Prof. René Quesnel – Sound Recording Assistant Professor
Mr. Tristan Cappachionne – Student representative

Strengths:

- The McGill Musicianship Program was the result of a major curriculum reform in the early 90's and was independently reviewed as one of the leading programs of its type in North America shortly thereafter.
- The program has excellent and dedicated, though mostly part-time, teaching staff.
- The program develops a broad range of practical and conceptual skills, organized by modules (rhythmic training, tonal structures, atonal structures, score reading, etc.) in a pedagogically sequenced and theoretically sophisticated fashion over a continuous number of semesters.
- McGill students have enjoyed a reputation for superior musicianship skills at the graduate and professional levels.

Recommendations for improvement:

- Establish a full-time presence to oversee the Musicianship Area.
- Define areas of responsibility for program development among musicianship staff and other faculty members within current core curriculum revision, reflecting increased responsibilities and workload in letters of appointment where appropriate.
- Refocus program on skill-building priorities and reduce testing obligations, reducing the number of semesters of musicianship within the core curriculum and providing Area/instrument-specific upper-level elective courses.
- Reduce class (tutorial) size to maximum of 12 students per section to ensure adequate skill building.
- Sustain and enhance links with Theory Area and Performance Department programs.
- Improve and renew computer-assisted study resources.
- Provide graduate students with musicianship training opportunities where valuable.
- Establish awards for recognition of excellence (Outstanding Achievement) in musicianship in parallel to those in other instruments and Areas.

April 2009

Academic Program Reviews 2004-2008

Final Program Review Summary Sheets – Faculty of Science

Undergraduate Programs

B.Sc. (Bachelor of Science) Faculty Programs in: Anatomy and Cell Biology; Biochemistry; Biology; Biology and Mathematics; Chemistry; Chemistry and Biological Sciences; Chemistry and Mathematics; Mathematics and Computer Science; Mathematics, Statistics and Computer Science; Mathematics, Chemistry and Physics; Microbiology and Immunology; Physics; Physiology; Psychology

B.Sc. (Bachelor of Science) Majors Programs in: Anatomy and Cell Biology; Atmospheric Sciences; Atmospheric Sciences and Physics; Biochemistry; Biology; Chemistry; Mathematics and Computer Science; Software Engineering; Computer Science; Earth and Planetary Sciences; Geography; Mathematics; Microbiology and Immunology; Physics; Physics and Computer Science; Physics and Geophysics; Physiology; Physiology and Mathematics; Physiology and Physics; Psychology

B.Sc. (Bachelor of Science) Honours Programs in: Anatomy and Cell Biology; Atmospheric Sciences; Biochemistry; Biology; Chemistry; Computer Science; Earth Sciences; Geography; Mathematics; Probability and Statistics; Applied Mathematics; Mathematics and Computer Science; Mathematics and Physics; Microbiology and Immunology; Immunology (Interdepartmental); Physics; Physiology; Psychology

Program Study Group Members:

Faculty Programs PSG
Laurie Hendren (Professor, Associate Dean, Academic), Chair
Louis Hermo (Professor, Department of Anatomy and Cell Biology)
Christopher Barrett (Associate Professor, Department of Chemistry)
Bill Anderson (Professor, Department of Mathematics and Statistics)
Jennifer Di Massimo (Staff, Department of Microbiology and Immunology)
Tanya Skamene (Student, Department of Physiology)

Major Programs PSG
Laura Nilson (Associate Professor, Department of Biology), Chair
Kathleen Cullen (Professor, Department of Physiology)
Jim Gleason (Associate Professor, Department of Chemistry)
Jim McGilvray (Associate Professor, Department of Philosophy; Director of Cognitive Science Program)
Raffaella Bruno (Staff, Department of Mathematics and Statistics)
Dena O'Hara (Student, Department of Biochemistry)

Honours Programs PSG
Charles Lin (Professor Department of Atmospheric and Oceanic Sciences), Chair
Julie Desbarats (Associate Professor, Department of Physiology)
Brigitte Vachon (Assistant Professor, Department of Physics)
Patrick Hayden (Assistant Professor, School of Computer Science)
Terry Wheeler (Associate Professor, Department of Natural Resource Sciences)
Anne Comeau (Staff, Department of Biology)
Elizabeth Munro (Student, Departments of Physics and Mathematics and Statistics)

Strengths

- The reviews of the Honours and Majors programs found that the programs were well-defined overall and were serving the purposes for which they were intended.
- The Honours programs were particularly well suited for students preparing for graduate studies and the Majors programs provided a solid foundation as well. Since the review, the Honours programs have been further strengthened so that all Honours programs now include an undergraduate research component.
- The Faculty programs provided a good opportunity for broader studies, but due to weaknesses in the programs they have been replaced by the new BSc Liberal programs which are more structured and ensure a balance of breadth and depth.
- The review noted the excitement in the Faculty of Science about undergraduate research, coming from both the students and the faculty. The course enrolment numbers showed that undergraduate research is on the rise and more than half the recent B.Sc. graduating students have participated in at least one undergraduate research course. The Faculty of Science has undertaken many initiatives to further strengthen undergraduate research, including the Soup&Science events where professors present their research to undergraduates, the 396 series of research courses, the Dean's Multidisciplinary Research List, the SURA undergraduate research awards for summer research, the Undergraduate Research Conference held each fall, the student-led McGill Science Undergraduate Research Journal (mSURJ) and other activities supported by the Faculty of Science Office for Undergraduate Research.
- The review highlighted the internationality of the Faculty of Science, including both the diverse nature of the faculty members and students. The Science Internships and Field Studies Office supports both national and international internship and field experiences.

Recommendations

- Clarify the distinction between the Majors programs and the Honours programs and ensure appropriate recognition of the extra work required in an Honours program.
- Clarify the goals of the Major programs and study a reasonable range of program credits that should be required for a single-discipline, joint and interdisciplinary major program.
- Retire the Faculty Programs and replace with the new B.Sc. Liberal program, which provides a uniform framework for students who wish to have some depth in a discipline plus breadth in another discipline.
- Review the minimal requirements for upper-year courses, research requirements, and CGPA requirements for Honours programs.
- Clarify the goals and outcomes of the Majors programs.
- Explore ways to reduce the gender gap in some disciplines, to attempt to reduce the gender gap in the Honours programs, and to find ways to encourage female undergraduates to continue on to graduate studies.
- Explore ways of following their graduates in order to track their progress and to help evaluate how the programs could be improved.
- Review the grading in Honours courses to see if Honours students are disadvantaged in CGPA.
- Look at alternative teaching methods, particularly with respect to labs and work-study opportunities

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Graduate Programs

M.Sc. (Master of Science) Thesis Programs in: Atmospheric and Oceanic Sciences, Biology, Chemistry, Computer Science, Earth and Planetary Sciences, Geography, Mathematics and Statistics, Physics, Psychology
M.Sc. (Master of Science) Non-Thesis Programs in: Computer Science, Mathematics and Statistics
M.Sc.(A) (Master of Science, Applied) in Chemistry
M.A. (Master of Arts) Thesis Programs in: Geography, Mathematics and Statistics, Psychology
M.A. (Master of Arts) Non-Thesis Programs in: Mathematics and Statistics
Ph.D. (Doctor of Philosophy) Programs in: Atmospheric and Oceanic Sciences, Biology, Chemistry, Computer Science, Earth and Planetary Sciences, Geography, Mathematics and Statistics, Physics, Psychology

Program Study Group Members:

Atmospheric and Oceanic Sciences PSG
M.K.Peter Yau (Professor), Chair
Vaughn Thomassin (Administrative & Student Affairs Coordinator)
Jan Sedlacek (Ph.D. student)

Biology PSG
Richard Roy (Associate Professor), Chair
Thomas Bureau (Associate Professor)
Laura Nilson (Associate Professor)
Brian McGill (Assistant Professor)
Andre Gonzalez (Assistant Professor)
Susan Bocti (Graduate Studies Coordinator)
Ancil Gittens (Graduate Studies Coordinator)
Erin Reardon (Graduate Student Ph.D.)

Chemistry PSG
Masad J. Damha (James McGill Professor; Director of Graduate Studies), Chair
R. Bruce Lennox (Chair, Chemistry)
Chantal Marotte (Graduate Program Coordinator)
Graduate Liaison Committee

Computer Science PSG
Matthieu Blanchette (Associate Professor, M.Sc. Program Director), Chair
Xiao-Wen Chang (Associate Professor, Ph.D Program Director)
Diti Anastasopoulos (Graduate Secretary)
David Titley-Peloquin (Ph.D. student)

Earth and Planetary Sciences PSG
Andrew Hynes (Full Professor and Logan Chair; Director of Graduate Studies) Chair
Kristy Thornton (Graduate Secretary)
Michael Patterson (Ph.D. student)

Geography PSG
Michel Lapointe (Professor), Chair
Maria Marcone (Graduate Affairs Secretary)
Dan Crouse (Ph.D. student)

Mathematics and Statistics PSG
Georg Schmidt (Professor), Chair
Carmen Baldonado (Graduate Program Administrator)

Physics PSG
David Hanna (Incoming Grad. Chair, Physics), Chair
Petter Grutter (Outgoing Grad. Chair, Physics)
Maria Kilfoil (Assistant Professor)
Andrew Cumming (Assistant Professor)
Aashish Clerk (Assistant Professor, Canada Research Chair Tier 2)
Robert Brandenberger (Professor, Canada Research Chair Tier 1)
Andreas Warburton (Assistant Professor)
Carolyn Young (student representative)

Psychology PSG
Barbel Knauper (Associate Professor), Chair
Giovanna Loscacio (Graduate Program Coordinator)
Crystal Holly (President of Graduate Student Association, Ph.D. candidate)

Strengths:

- Strong graduate programs in all Science units. All programs attract good students.
- Most faculty members are active graduate student advisors. The participation of faculty as advisors will continue to increase as the large number of new and active researchers hired in recent years build their research groups.
- Significant opportunities for students to "fast-track" from M.Sc. to Ph.D. programs.
- Most M.Sc. and **all** Ph.D. students in the Faculty of Science receive good funding support.
- A significant number of international students, close to 1/3rd of graduate students are international students.

Recommendations:

- Increase efforts at providing help for installation in Montréal, e.g. a "proper" welcome-to-McGill website and/or a guide for international students.
- Improve Graduate Student Experience, e.g. better space and equipment.
- Maintain or amplify recruitment efforts on the Quebec and international scene.
- Address gender imbalance in recruitment.
- Decrease bureaucratic obstacles and 'red tape' that exists or is perceived to exist to admission and registration of graduate students.

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