McGill

DEPARTMENT OF MECHANICAL ENGINEERING

Departmental Graduate Studies' Policies and Procedures

(Last updated: August 2012)

Most rules, policies and procedures governing graduate studies at McGill are specified by Graduate and Postdoctoral Studies and can be found in the Graduate and Postdoctoral Studies Calendar: http://www.mcgill.ca/study/2012-2013/

In addition, the Department of Mechanical Engineering has its own policies and procedures. These policies and procedures are administered by Graduate Program Coordinator Ms. Joyce Nault under the direction of Graduate Program Director Prof. Luc Mongeau as well as Graduate Admissions and Fellowships Coordinator Ms. Emily McHugh under the direction of Graduate Admissions and Scholarships Director Prof. Siva Nadarajah.

The Graduate Student Handbook http://www.mcgill.ca/files/mecheng/GradProg.pdf is another useful source of information for current graduate students. It explains some of the technicalities of registration, scholarship information and provides some useful contacts to University services. Students are also advised to keep a record of the helpful "Important Student Dates" link at: www.mcgill.ca/important/faculty/gr/

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GENERAL PROCEDURES

Office Space and Desk Allocation

IMPORTANT:
Due to the large increase in student enrolment, the Department may not be able to provide every graduate student with a desk and/or office space.

Mechanical Engineering graduate students who require the use of a desk should contact Ms. Joyce Nault (Room 270). As they become available, desks are assigned to students, with priority being given as follows:

1) Ph.D. students
2) M.Eng. Thesis students

Unfortunately, due to limited physical resources, we are normally only able to allocate desks to Ph.D. and M.Eng. (Thesis) students. In addition, students who do not use their desks regularly may be required to share that desk.

There are telephones available in all student offices. Keys can be obtained from Room 270 upon completion of a "Request for Keys" form available from the Receptionist.

Students who wish to change their desk location must make this request to Joyce Nault (Room 270). Students who change their desk location without consulting Ms. Nault may lose their desk space.

As the office spaces provided by the Department are intended as quiet study areas, students are expected to behave appropriately. Students who, at any time, abuse the privilege of the desk and office space provided by the Department will lose this privilege.

After-Hours Library Access

Students wishing to have access to the library during weekends or after hours should see Joyce Nault in Room 270.

I.D. Card Information

I.D. Cards may be obtained after you register via MINERVA. To find out the time and place to obtain your ID card, please check http://www.mcgill.ca/students/records/id/

1. Course-Related Policies and Procedures

Course-related policies include those on transferring credits taken before entering a program, course reread, and course failures. The latter two of these are policies of the Graduate and Postdoctoral Studies Office (GPSO). You can find more details on these using the menu on the left.

1.1. Request to Transfer Credits

Students entering graduate studies in Mechanical Engineering can request transfer of credit for graduate courses taken previous to their entry in their program. These courses must be pertinent to the degree being undertaken. Typically, the committee will approve such courses as long as a grade of B- or better was obtained. Credit cannot be given for any course taken for credit toward another completed degree.

In the case of courses taken outside McGill, a maximum of one-third of coursework credit may be transferred from outside institutions. (Coursework credit does not include Thesis, Project or Stage credits).

It is important to note that transfer of credit for courses taken while already in our program must be requested **before** the course is taken.

Students wishing to request a transfer of credits should do so, in writing, to the Graduate Program Director. In the request, the student should state

- the program they are in at McGill and starting date,
- what course in their McGill program they would like to request credit for/exemption from (e.g., a complementary course, or a specific core course). Please note that exemption from core courses is reviewed more critically,
- when and where the course they want credited was taken.

Supporting documents required

- In the case of thesis students, a letter from the supervisor (or email from supervisor to Grad Program Director) supporting the request,
- an **official** transcript showing the course taken and the grade obtained,
- the course description of the course taken, and
- proof that the course was not taken for credit toward another degree.

Once this request and supporting documentation are received, the request is reviewed by the Graduate Administration Committee. Upon completion of the review by that committee, the GPD notifies the student of the Committee's decision, and arranges to submit a Credit/Exemption form to Graduate Studies, as needed.

1.2. Request for Reread

Students have the right to request a review of a course mark ('reread'). If the course is a 500-level course, the request should be directed to the Faculty of Engineering Student Affairs Office, Engineering Student Centre, Frank Dawson Adams, room 20.

The Faculty of Engineering governs the regulations used in these cases: http://www.mcgill.ca/engineering/

If the course is a 600- or 700-level course, the request should be directed to the Graduate and Postdoctoral Studies Office, Room 400, James Administration Building. Details of the procedure are laid out in the http://www.mcgill.ca/study/2010-2011/ Section 10.5. A student requesting a reread may be charged a fee of $35.00.

1.3. Course Failure Policy

At the end of each term, the Graduate Program Coordinator will review the grades of all graduate students. A graduate student failing any course toward the degree (grade less than B-, J grade, or uncleared K and L grades) must repeat that same course, the next time it is offered*.

If a graduate student fails a second course, whether that course was the previously failed or not, that student must withdraw from the program.

In all cases, if a reread has been requested, a final decision on the student's status must await the outcome of the reread.

* If repetition of the same course would unduly delay graduation, the student may request, in writing to the Graduate Program Director, to have another course approved for substitution. The course may be substituted only if approval was obtained before beginning the course.

2. Transferring or Changing between Graduate Programs

The Department allows students to transfer between programs subject to certain conditions detailed here. Changing from M.Eng. (Non-Thesis) to (Thesis) or *vice versa* is considered a transfer since the degree program is still the same. Changing from M.Eng. (Thesis) to PhD is considered a change of program and entails a new (but accelerated) admission process.

2.1. Transfer from M.Eng. (Non-Thesis) to M.Eng. (Thesis)

A student who has been in the M.Eng. (Non-Thesis) program for 15 months or less may transfer to the M.Eng. (Thesis) option, with the support of a proposed supervisor. The student must have completed a minimum of one term of course work, and at least three courses. The student must not have failed any courses while in the M.Eng. (Non-Thesis) program, and have a minimum GPA of 3.3.

To request a transfer from Masters (Non-Thesis) to Masters (Thesis) option, a student must apply, in writing, to the Graduate Program Director. The request should include a note from the proposed supervisor supporting the request.

The request must be reviewed and approved by the Graduate Administration Committee. If approved, the GPD notifies the student and supervisor and arranges to send a memo to Graduate Studies requesting their final approval of the change.

2.2. Transfer from M.Eng. (Thesis) to M.Eng. (Non-Thesis)

In exceptional circumstances, an M.Eng. (Thesis) student may transfer to the M.Eng. (Non-Thesis) option. The request to transfer should be made in writing to the Graduate Program Director (GPD) and should include:

• the original entry date into the program
• the reason for the proposed transfer
• a letter of support from the proposed Supervisor to work with the student

The Graduate Program Director will discuss the proposed transfer with the supervisor and the student to ensure that the transfer is in the student's best interests. If approved by our department Graduate Administration Committee (GAC), the GPD notifies the student and supervisor and arranges to send a memo to Graduate Postdoctoral Studies office, requesting their final approval for the program change.

2.3. Changing Programs from M.Eng. to PhD

Within 15 months of initial registration in the M.Eng. (Thesis) program, an outstanding student may request a transfer into the Ph.D. Program, without submitting a Masters thesis, provided that the following requirements are met:

- The student has completed at least 4 courses at 500 level or above toward the M.Eng. requirements.
- The above courses have been completed in no more than two terms.
- The student should have a cumulative GPA of 3.7 or higher.
- The supervisor supports the transfer.

The request must include a current CV, a transcript of McGill grades, and the letter of support from the supervisor. It is reviewed by the Graduate Administration Committee for evidence that the student is academically outstanding and has a strong research capability. If the request is approved, the student will be asked to submit an application to the PhD program, and a decision form will be sent to the Graduate and Postdoctoral Studies Office to affect the transfer.

Within 6 months of the transfer, the student must complete any outstanding coursework credit for the M.Eng. degree, and must take the Ph.D. Preliminary Oral Examination. The normal PhD course requirement must be fulfilled within one year of the transfer.

3. Masters-specific Policies

The Masters-specific Departmental policies relate to the M.Eng. Seminar (MECH 609) and the M.Eng. (Non-Thesis) report. These are detailed in the following pages.

3.1. Masters Seminar: Setup and Conduct

The Masters Seminar (MECH 609) is **compulsory** for Mechanical Engineering Meng. (Thesis) and Meng. (Non-Thesis) Students. All M.Eng. Students (except M.Eng.. Aerospace) will be required to **attend at least 12 seminars** during their course of study.

The date of the Masters seminars will be scheduled each month by the Graduate Coordinator. Up to a maximum of five seminars will be scheduled, and it is important to book a time slot well in advance.

Each speaker will be required to present a seminar for 20 minutes to be followed by a 10-minute question and answer session. The student's seminar will be evaluated by the Masters Seminar Supervisor and a letter grade will be assigned. The following evaluation scheme will be used:

Organization and Content	45 points
Delivery of Presentation	25 points
Question session	20 points
Peer Review*	10 points
Total	100 points

* A peer-review form will be handed out to each member of the audience to rate the quality of the presentation based on several factors. This form will also help to ascertain the attendance of students at these seminars.

Scheduling a Seminar

Make sure that your research or design work is finalized before undertaking to present your seminar. Normally, students are expected to present the seminar within a month (before or after) of submitting the thesis or design project report. Be sure to follow these steps in proper order.

1. Prepare an abstract using the template provided in Appendix A, and have it approved and initialed by your supervisor. This abstract should be 12 to 18 lines long and should include the following information:
    - What is the problem/issue, and why it is important;
    - How the problem was solved or addressed (including basic ideas and methods);
    - What will be presented during the seminar, as well as, a discussion of the student contributions in the area of research.
2. Have your supervisor initial the abstract to indicate his/her approval thereof. Note that the supervisor's presence at the seminar presentation is mandatory, so you should confirm his/her availability for your proposed date and time before bringing your abstract to the Graduate Program Coordinator.
3. Submit the abstract to the Graduate Program Coordinator. This should be done at least **two weeks prior** to the anticipated presentation date.
4. Once the abstract has been approved by the Masters Seminar Supervisor, the Graduate Program Coordinator will confirm the date of the presentation and advise you of any modifications to be made to the abstract.
5. At least one week in advance of the presentation, you must bring one copy of your seminar abstract to the Graduate Program Coordinator, who will then forward the scanned abstract, via e-mail attachment, to Master of Engineering Thesis and Non-Thesis students and Departmental Faculty members.
6. Be sure to prepare the seminar room (ENGMD 267) well in advance of starting time so that your presentation is not delayed. See the Graduate Program

Coordinator in room ENGMD 270 to open the door for you. An overhead projector and an LCD projector are available in ENGMD 267.

3.2. M.Eng. (Non-Thesis) Project Report Guidelines

The M.Eng. Projects can be related to a theoretical, computational, experimental study, or to an engineering design, as chosen by the supervisor of the project in agreement with the student. While the topics can vary widely, all the projects must be finalized in a Project Report, which is worth 12 credits.

Format

The Project Report should be between 30 and 60 pages in length (including figures, tables and appendices). It must be typed in a 12-pt font with 1.5 or double line spacing. Double sided copies are strongly recommended.
Three copies must be submitted, along with a completed Project Report Submission Form, to the Graduate Program Coordinator. Deadlines are the same as the deadline dates for the submission of M.Eng. Theses: http://www.mcgill.ca/gps/current/dates/. All Master of Engineering, Non-Thesis, students must apply to graduate on Minerva at this time.

Content

The Report should contain the following sections:

- A title
- An abstract
- A brief Introduction, containing a statement of the objectives and motivation of the project, a brief discussion of previous related work, and a description of the sections to follow.
- One to three main chapters presenting the work done by the student and the results obtained, with a proper discussion of the relevance of these results.
- A brief section of Conclusions, discussing the main contributions of the project work.
- A concise List of References.

Evaluation

The Graduate Program Director will select one of the reviewers nominated on the Project Submission form to review the Report. The supervisor will also be requested to provide a review of the Report. The graduate program director will assign a mark based on the two reviews. The Report will be graded based on the quality of the work, the relevance of the results obtained and the quality of the presentation. The reviewer's comments will be communicated to the student and the project supervisor will guide the student in addressing those comments in the final version of the report.

4. PhD-specific Policies

The PhD-specific Departmental policies relate to the PhD Preliminary Oral Examination (MECH 701) and the PhD Final Defense. These are detailed in the following pages.

4.1. PhD Preliminary Oral Exam: Setup, Conduct and Research Proposal

Background

The primary purpose of the preliminary examination is to assess whether or not the student has the necessary research skills and academic background to pursue a research program in the student's chosen topic. It is not a comprehensive examination. The committee will normally use the student's research proposal as a starting point to ask questions focused on the following areas:

1. the student's knowledge and understanding of existing research in the area;
2. the student's knowledge and understanding of the theoretical and/or experimental techniques being proposed to pursue the research;
3. the student's understanding of the type of results expected from the research program;
4. the student's provisional research plan;
5. the expected contributions in the student's research area and particularly their originality.

If the committee detects weaknesses in the student's background in the disciplines related to the research program, the committee may pursue questions on the fundamentals of these academic topics.

It should be stressed that this is not an examination of the project, it is an examination of the student's ability to pursue the project; however, committee members are encouraged to comment on the feasibility of the project and make suggestions on the proposed plan.

Setup

All Ph.D. candidates are required to take the Ph.D. Preliminary Exam 12 months from initial entry into the program.

1. The setup of the PhD Preliminary Oral Exam is initiated by the student's supervisor. The supervisor sends a recommendation of two Internal Members for the committee to Prof. David Frost, with a copy to Prof. Meyer Nahon and the Graduate Program Coordinator, Joyce Nault. For interdisciplinary projects, an External Member may be added to the committee list. The internal Members should normally be the same people who were selected as members of the PhD Thesis Advisory Committee at the outset of the student's program. Prof. Frost will then confirm to the Supervisor the Committee composition (all are voting Members), i.e., Committee Chair, Supervisor(s) and 2 internal Members, with cc to the Committee Members.
2. The Supervisor or Student arranges the exam scheduling; he/she contacts the Graduate Program Coordinator to obtain available time slots for the prelim examination in room MD-357.
3. The Supervisor or Student will then e-mail Committee Members with an offering of 2 to 3 time slots, at least 2 to 3 weeks in advanced of the proposed dates. In consultation with the Supervisor, a day/time is chosen accordingly. If no suitable slot is found, return to step 2 to identify a new set of time slots when MD-357 is available. Once a suitable time slot is found, the Supervisor or Student must

confirm the room booking with the Graduate Program Coordinator and then e-mail all Committee Members, informing them of the final, selected day and time.

4. The Student must bring a copy of the PhD research proposal with Curriculum Vitae for each Member plus one additional copy for the student file to the Graduate Program Coordinator for distribution to Committee Members at least one full week prior to the exam date.
5. The day previous to the exam, the student must send an e-mail reminder to all Committee Members, including the time and place of the exam, with a copy to the Graduate Program Coordinator.

Guidelines for Research Proposal and CV

The candidate should submit to the Graduate Program Coordinator enough copies of the research proposal for each Committee Member, with an additional copy for the Graduate Program Coordinator at least one full week prior to the Preliminary Examination. A Curriculum Vita (maximum of 3 pages), which should include a list of all graduate courses taken and the grades obtained, must be appended to each research proposal.

The proposal should be a maximum of 10 pages long, typed single-spaced, in a single-column format in a 12 pt font. Please be aware that any pages exceeding this limit will not be considered. It should have 5 sections as follows:

1. Background material and literature survey
2. Description of the project and its objectives
3. Description of research methodology, mathematical models, analytical or numerical solution methods, and preliminary results
4. Experimental procedure (if applicable) and/or validation of models
5. Expected contributions

Conduct of the PhD Preliminary Oral Exam

Once all members of the examination committee are present, the Chair of the committee asks the candidate to step out.

The Chair reviews the following items with the committee:

- Starting date in program
- Prior degrees Bachelors, Masters (type, place, duration, thesis title)
- courses taken, grades
- Fellowships obtained
- Publications
- Procedural terms of reference:
    - Emphasize that the committee is primarily reviewing the candidate, not the project. However, it is also acceptable to give comments on the feasibility of the project, or make suggestions on the proposed plan.
    - Set the sequence of questioning (typically as follows: External member, 2 internal examiners, supervisor, Chair)
    - We typically aim for 10-15 minutes per examiner in the first round
- Questions

Once the above items have been reviewed with the committee members, the candidate is asked back in to the room, and is asked to give a brief (20-25 minutes) presentation. Once the presentation is completed, the first round of questioning begins. Normally, there will be two rounds of questions.

Once the question period is complete, the candidate is asked to leave the room. The committee then discusses the candidate's performance in the presentation, the response to questions and the proposal document. The main goal of this discussion is to determine whether the candidate has passed or failed. Normally, this decision is reached by consensus. However, the strict requirement is a majority of the committee.
The committee may propose remedial measures as needed, e.g., additional courses to take. The Chair of the committee completes the PhD Preliminary Examination Report, and obtains signatures from all committee members.

Following the examination, the student will be given a copy of the PhD Preliminary Examination Report; and the supervisor will discuss the outcome of the examination with the student, and convey feedback from the committee to the student.

In case of a first failure of the Preliminary Oral Exam, the candidate will be informed (in writing), by the Chair of the Examining Committee, of the reasons for this failure, as well as a time delay (at most, 6 months) within which the examination may be repeated. A grade of HH (continuing) will be reported. In the case of a second failure a failing grade will be reported, and the student will be asked to withdraw from the program.

4.2. PhD Final Defense: Setup and Conduct

The PhD final oral defense is the last step in a PhD student's doctoral work. It takes place after the thesis has been reviewed by an internal examiner and an external examiner. Below are given the guidelines for the setup and conduct of the exam. However, please note, that many of these steps are primarily the jurisdiction of the Graduate and Postdoctoral Studies Office (GPSO).

Setup

The setup of the PhD Final Defense is initiated by the supervisor as early as two weeks before the thesis reviews are due at GPSO. The supervisor should be aware of this date as it is in the letter he/she receives from GPSO when the review is requested. The supervisor should meet with the Department Chair to agree on a composition of the examination committee. This committee includes:

1. The Pro-Dean (selected by GPSO)
2. The Department Chair or Proxy
3. The supervisor, and co-supervisor(s) if any
4. The internal examiner
5. One additional member internal to the Department (an alternate internal member is also named)
6. One member external to the Department (an alternate external member is also named)

The Chair and supervisor agree on the above names and specify an approximate date for the exam. The supervisor completes the PhD Oral Defense form accordingly and gives the form to the Graduate Program Coordinator (GPO).

The GPO contacts the external member to secure an agreement to participate on the committee. If this is unsuccessful, the alternate external member is contacted.
Once a willing external member has been identified, the GPO contacts all members of the committee, including the alternate internal member, with a list of tentative examination dates and times. Once a suitable date is found, all members of the committee and the student are notified. The GPO books a room for the defense.

The GPO then sends the completed PhD Oral Defense form to the Graduate and Postdoctoral Studies Office (GPSO) at least two weeks before the date of the exam. The GPSO nominates a Pro-Dean.

Conduct
The PhD final defense is chaired by the Pro-Dean. As such, its conduct is primarily the jurisdiction of the Graduate and Postdoctoral Studies Office.

It is customary in our department for the student to make up a brochure containing a very brief CV, list of publications, abstract, and committee composition. It can be prepared using the "PhD Final Defense Brochure" template in appendix C and copies should be posted on the third floor and made available to those attending the defense.

5. Thesis Submission Procedures

Prior to submitting their thesis for external review, the thesis examiners must be selected. This is done by submitting a Nomination of Examiners Form which must be approved by the Department. This form is then submitted along with the thesis.

Formal submission of the thesis is done at the Graduate and Postdoctoral Studies Office, but copies of the thesis must also be submitted to the Department Graduate Program Coordinator. The following pages provide more detail on this process.

5.1. Submitting Nomination of Examiners Form

When a thesis is submitted to the Thesis Office, it must be accompanied by a completed Nomination of Examiners form: http://www.mcgill.ca/files/gps/th-nomform.pdf . This form is to be completed jointly by the supervisor and student.

In the case of a Master's degree, the internal examiner is the supervisor, and the external examiners should preferably be at McGill. It is the responsibility of the Supervisor(s) to ask the Professor of his/her choice if he/she will consent to review the thesis (as external examiner), PRIOR to entering his/her name on the Nomination-of-Examiner form.

In the case of a PhD degree, the internal examiner must be from McGill, and preferably from the Department. The external examiners must be from outside McGill. It is the responsibility of the Supervisor(s) to ask the Professors of their choice (both internal & external Examiners) if they will consent to review the thesis, PRIOR to entering his/her name on the Nomination-of-Examiner form.

Apart from the internal examiner in the case of a Master's degree, the examiners nominated should not have been involved in supervision of the thesis.

The form should be submitted to the Graduate Program Coordinator in time to be reviewed by the Graduate Administration Committee (GAC) at one of its meetings (mid-January, mid-April, mid-September), preceding the expected submission date. If changes are suggested by the GAC, these are communicated to the supervisor. Once approval is obtained, the form is signed by the Department Chair and returned to the supervisor.

5.2. Thesis Submission

Initial Submission

Theses are submitted to the Thesis Office of the Graduate and Postdoctoral Studies Office (GPSO) in Room 325 of the James Administration Building. The GPSO specifies the detailed procedure http://www.mcgill.ca/gps/students/thesis/programs/guidelines/ for doing this, as well as the relevant deadlines to be met in order to graduate by a particular date: http://www.mcgill.ca/gps/students/thesis/deadlines/.

In the case of a Masters thesis, you should make 3 *double-sided* copies of the thesis. Your name and program should be clearly marked on the spine of the thesis. Copies 1 and 2 are submitted to the Department Graduate Coordinator along with a copy of the Thesis Submission form. Copy 3 (the original) is submitted to the Thesis Office.

In the case of a PhD thesis, you should make 7 *double-sided* copies of the thesis. Your name and program should be clearly marked on the spine of the thesis. Copies 1 through 5 are submitted to the Department Graduate Coordinator, along with a copy of the Thesis Submission form. Copies 6 (the original) and 7 are submitted to the Thesis Office.

When the thesis is submitted to the Thesis Office, it must be accompanied by a completed and signed Nomination of Examiners form, a UMI and McGill Library Waiver form, and a Thesis Submission Checklist. These are all available at the GPSO site: http://www.mcgill.ca/gps/staff/thesis/forms/ .
The Thesis Office arranges for the review of the thesis by the external examiner. The Department is responsible for sending a copy of the thesis to the internal examiner and to the supervisor.

Final, Corrected Submission
Once all corrections have been made, a final corrected E-thesis must be submitted to the Thesis Office. The GPSO specifies the detailed procedure (Section F) for doing this, as well as the relevant deadlines to be met in order to graduate by a particular date:
http://www.mcgill.ca/gps/students/thesis/programs/ethesis/

6. Full-Time and Additional Sessions

During the first period of each program, a student is considered to be of full-time status. During these terms, the student pays higher tuition fees than in the terms which follow ('additional sessions'). Please see current tuition fees at the following link: http://www.mcgill.ca/student-accounts/fees/

All our MEng programs have 3 full-time terms. For a student entering in the fall, this would typically be the fall term, the winter term, and the following fall term. Usually, students are considered to be in 'Continuing Status' during the summer term. However, if they so choose, (and pay corresponding fees), they can make the summer term a full-time term.

Our PhD program has 4 years of full-time status beyond the start of PhD 1. Since almost all our PhD students are admitted at PhD 2, the usual period of full-time status is therefore 3 years.

All terms after the full-time status period, until the program requirements are fulfilled, are known as Additional Sessions. During these terms, tuition fees are lower.

7. Time Limitation

Each program has associated with it a maximum number of terms within which the program requirements must be completed.

All our MEng programs must be completed within 3 years of initial registration, assuming full-time status. If a student is registered as half-time, each pair of terms counts as one full-time term. For students who have registered *strictly* on a part-time or half-time basis throughout their program, the degree must be completed within 5 years of initial registration.

The PhD program must be completed within four years of finishing the residency requirement, that is, by the end of PhD 7 (note that most PhD students are admitted in PhD 2).

If a student has not fulfilled the program requirements within the above times, they reach 'Time Limitation'. When this occurs, further registration is not permitted unless special approval is granted by the Graduate and Postdoctoral Studies Office (GPSO).

The procedure to obtain this approval is as follows: the student must make a written request for an extension to the Graduate Program Director (GPD). The request should clearly explain the reason(s) for the delay in completing the program. The request should also present a clear plan for program completion. This plan should be formulated with the help and support of the student's supervisor.

The GPD will contact the student's supervisor, as applicable, to further ascertain causes of delay, as well as determine the chances of eventual completion. The supervisor will be requested to write a letter supporting the student's request. This letter should give reasons for the delay and an assurance that the proposed plan to completion is realistic.

Based on the above, the GPD will determine whether the student's request for extension should be supported by the department. If so, the GPD will write a letter to the GPSO supporting the request, and the GPSO then determines whether the request should be granted.

Please note that all the above steps must be *completed* about 2 months *before* time limitation begins. Therefore, the process should be put in motion about 4 months before time limitation begins, if it appears that it will be needed at that point.

8. Part-Time and Half-Time Status

In the Department of Mechanical Engineering, the only programs which can be pursued part-time are the M.Eng. (Non-Thesis) and the M.Eng. (Aero) programs. Additional conditions are that the student must be in a residency term and be a Canadian citizen or Permanent Resident of Canada.

All thesis programs are intended to be pursued full-time. In special circumstances, during the residency period, a student may request to be transferred to half-time status.
In Additional Sessions (Section 6), all programs are implicitly full-time.

9. Leave of Absence

A student may request a leave of absence for health reasons or for maternity or parenting reasons. In special circumstances, a leave may be granted when a close family member is ill. A medical certificate must accompany a request for a leave. Leaves may be granted by the Graduate and Postdoctoral Studies Office (GPSO) for a maximum of 52 weeks.

During a medical leave, the student may not take courses nor expect guidance on their research. During a maternity/parental leave, the student may not take courses.

For further details, please consult
http://www.mcgill.ca/files/students/GPS0_20092010.pdf ,

Appendix A

MEng Seminar Abstract Template

McGill

Department of Mechanical Engineering
MECH-609 Seminar

Research Title goes here

by

Student's Name

(Program i.e.: M.Eng. Thesis or Non-Thesis)

Supervisor: _____

The rate of heat transfer to a fluid flowing in a pipe can be greatly enhanced by the use of internal fins, but the pressure gradient must be similarly increased in order to maintain the desired flow rate. Computer simulations are a cost-effective method to obtain optimal heat transfer designs of internally finned pipes. In this work, a control-volume finite element method was formulated, coded, and used for computer simulations of fully-developed, laminar, fluid flow and heat transfer in pipes with internal twisted fins of triangular cross-section. Values of the Nathan number and friction factor were computed for relevant ranges of twist ratio, fin length, fin thickness, and Reynolds number, for a radial number of unities. Some 'optimal' configurations were identified. An overview of this work and the results will be presented in this seminar.

Date: Thursday, January 5, 2012

Time: 11:00 am

Place: Room 267, Macdonald Engineering Building

"All are welcome!"

(Attendance of MEC- 609 Seminar is mandatory for all students in Master (Thesis) & (Non-thesis) Programs)

Appendix B

Project Report Submission Form

McGill

DEPARTMENT OF MECHANICAL ENGINEERING
MASTERS OF ENGINEERING PROJECT SUBMISSION FORM

PART 1: TO BE COMPLETED BY THE STUDENT:

NAME: _____

STUDENT ID #: _____

EXACT TITLE OF YOUR MASTERS PROJECT REPORT:

_____

_____

_____

_____ _____
Student's signature Date

PART 2: TO BE COMPLETED BY THE SUPERVISOR

I certify that the style and presentation of this project report has been approved for submission, and I recommend that the second examiner be selected from amongst the following three people:

1._____

2._____

3._____

_____ _____
Student's signature Date

Appendix C

PhD Final Defense Brochure Template

CURRICULUM VITAE

Name: William Carson

Address: Apt. 1-506 – 78 Yong Street,
Toronto, Ontario – T6R 2L8
Phone : 416-573-8893
E-mail: william.carson@mail.mcgill.ca

Education:

1992 – 1994 U. of Toronto,
Toronto ONTARIO
M. Sc., (Energy Science)

1987 – 1992 McGill University
Montreal, QUEBEC
B. Sc., (Physics)

Awards & Scholarships:

Ministry of Education, Culture, Sports,
Science and Technology, CANADA

PUBLICATIONS

Carson, Y Fukuda, T., Iida, M., Takasaki, T., Kikuchi, K., Murata, K., Wakabayashi, Y. & Ozawa, S. 2004 Propagation of a Compression Wave in a Long Slab-track Tunnel. *RTRI REPORT*, Vol. 18, No. 11.

Carson, Y. 2002 Suzuki, M., Fujimoto, H., Measures to reduce aerodynamic force acting on high-speed train in tunnel. In *Proceedings of the 11th Transportation and Logistics Conference (TRANSLOG 2002). JSME, pp. 277-78, Kawasaki, Japan*.

Carson, Y. 1999 Proper Orthogonal Decomposition of Fluctuating Pressure on Train Sides and Train Lateral Vibrations. In *Proceedings of Annual Meeting of Japan Society of Fluid Mechanics '99, Tokyo, Japan*.

Carson, Y., Suzuki, M. & Maeda, T. 1998 Measurement of Flow Around a High-Speed Train. In *Proceedings of 4th KSME-JSME Fluids Engineering Conference, Pusan, Korea*, 177-180.

Carson, Y. & Shimomura Ishihara, T., Utsunomiya, M., Okumura, M., , T. 1997 An Investigation of Lateral Vibration Caused by Aerodynamic Continuous Force on High-Speed Train Running within Tunnels. In *Proceedings of the World Congress on Railway Research '97*, Florence, Italy, Nov. 16, E, 531-538.

ABSTRACT

Dynamics of Air Systems in Confined Fluid

The dynamical stability, wave and mode localization in a plane of flexibly interconnected rigid parts moving in a confined "airflow" subjected to fluid dynamic forces are studied theoretically. Each cylinder, which is coupled and supported by springs and dampers, has two degrees of freedom of translational and rotational motions. The kinetic, dissipation, and potential energies of the system and the generalized forces associated with the fluid dynamic forces acting on the system, such as fluid dynamic forces, viscous frictional forces, and form drag, is obtained first. Then the equations of motion are derived by application of the Lagrange equation. The principal aim of this study is to investigate the effect of aerodynamic forces on the dynamics of a high-speed plane running in a tunnel, or more generally of a train-like system moving in a tube.

The results of this study show that (a) the system loses stability by flutter; (b) viscous frictional drag has a considerable effect on stability; (c) when the aerodynamic forces act on the train, the frequency bands of the dispersion relation of wave propagation shift, and thus no classical normal modes (standing wave solutions) exist in the system; (d) the wavelength of the moving force controls phase differences among cylinders in the train: and (e) the imperfections in the supporting springs have a great influence on mode localization and considerably alter the stability of the system.

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10h00
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