

# Supplementary Regulations Faculty of Graduate Studies (FGS)

**Name of Unit/Program:  
Electrical and Computer Engineering (M.Sc., M.Eng. & Ph.D.)**

**FGS Academic Guide Regulation 2022/23**

**Supplementary Regulation**

## PREFACE

The Faculty of Graduate Studies is a pan-University faculty responsible for overseeing the administration of all graduate programs at The University of Manitoba. The Faculty of Graduate Studies Academic Guide contains all the rules and policies pertaining to the Faculty of Graduate Studies. These regulations apply to all graduate students in all programs in all academic units. Adherence to these rules is of utmost importance for the effective functioning/operation of programs and for guiding and monitoring the progress of students. It is the responsibility of students and the department/unit offering a graduate program to read and follow the policies contained herein.

All regulations as laid out in the Faculty of Graduate Studies Academic Guide are subject to revision by the appropriate bodies of the Faculty of Graduate Studies. This compendium is presented as the most recent set of regulations as a guideline for students and staff. Individual departments/units may have additional regulations that supplement these general regulations. Supplementary procedures and regulations must be approved as specified by the By-Laws of the Faculty of Graduate Studies, be published and available to students, and be kept on record by the Faculty of Graduate Studies Office.

For those programs that are administered through a Faculty (as opposed to a Department) the term "Department" should be substituted by "Unit" within this document (i.e., Department Head becomes Unit Head.)

## Definitions

The "Dean, Faculty of Graduate Studies" shall be taken to mean the Dean, Faculty of Graduate Studies or designate.

"Unit" shall be taken to mean the academic unit where the graduate student is pursuing their studies. Generally, this is the department. For Faculty-based programs, the Dean or Director is the *de facto* Head of the unit. The term "unit" shall also include School(s) or College(s) of Faculties within the University. The Dean of the Faculty of Graduate Studies is the *de facto* Head of interdisciplinary programs administered by the Faculty of Graduate Studies. The Head of any unit may designate any of their responsibilities in this policy to another member of the unit (e.g., Graduate Chair).

The Graduate Studies Committee of the Department of ECE consists of ECE faculty members that are selected for three-year terms. The committee members are selected to reflect, as much as possible, the diversity of the research areas within the Department. The committee is chaired by the ECE Associate Head (Graduate Programs).

## 1.1 Application and Admission Procedures

The application (and all required documentation) is to be submitted directly to the Faculty of Graduate Studies via the online application system. **Applicants should contact the department/unit to which they are applying for the procedures and requirements which are specific to the program of application.** Contact information for each department/unit can be found on the [Graduate programs of study website](#).

### 1.1.1 Process:

1.1.1 (a) A completed official application for admission form must be submitted, together with the application fee and supporting documentation, to the Faculty of Graduate Studies, via the online application system. Applicants are **required** to submit the application and documentation to the Faculty of Graduate Studies in time to meet the application deadline in place for a particular department/unit. Deadlines

Department of Electrical and Computer Engineering  
E2-390 EITC Bldg., 75A Chancellors Circle  
University of Manitoba  
Winnipeg, Manitoba R3T 5V6

Please contact us by email only.  
[inquiries@EE.UManitoba.CA](mailto:inquiries@EE.UManitoba.CA)

We cannot answer questions regarding the graduate program over the telephone.

Admissions information and instructions (ECE Graduate Program) are available at  
[http://umanitoba.ca/ece/pros\\_students/grad/admissions.html](http://umanitoba.ca/ece/pros_students/grad/admissions.html)

<p>vary depending on the program to which the applicant is applying and whether the applicant is domestic or international. Deadlines can be found by clicking the appropriate application program page on the <a href="#">Graduate programs of study website</a>.</p> <p><b>Note:</b> International students must pay special attention to transcript requirements (see application form for details).</p> <p>1.1.1 (b) Applications are subsequently reviewed by the unit offering the program which will decide whether the applicant meets the unit's criteria including, but not limited to, availability of advisors, space, and facilities.</p> <p>1.1.1 (c) Notification of recommended/rejected applications is sent by the Head of the unit to the Faculty of Graduate Studies. Applications recommended for admission are checked to determine if they meet the Faculty of Graduate Studies' eligibility requirements. The Faculty of Graduate Studies then notifies applicants of their acceptance or rejection.</p>	<p>Note: Tentative acceptance by an academic advisor of the ECE Department is required prior to formally applying to the graduate program.</p> <p><a href="http://umanitoba.ca/faculties/engineering/departments/ece/staff/academics.html">http://umanitoba.ca/faculties/engineering/departments/ece/staff/academics.html</a></p>																
<p><b>1.1.2 Deadlines for Recommended Applications (from Departments/Units to the Faculty of Graduate Studies)</b></p> <p>The following are the deadlines for receipt by the Faculty of Graduate Studies of recommendations from departments/units.</p> <table border="1"> <thead> <tr> <th>Term</th> <th>Start Date</th> <th>Canadian/US</th> <th>International</th> </tr> </thead> <tbody> <tr> <td>Fall</td> <td>September</td> <td>July 1</td> <td>April 1</td> </tr> <tr> <td>Winter</td> <td>January</td> <td>November 1</td> <td>August 1</td> </tr> <tr> <td>Summer</td> <td>May</td> <td>March 1</td> <td>December 1</td> </tr> </tbody> </table> <p><b>IMPORTANT:</b> <u>These are not unit-specific application deadlines.</u> Prospective applicants must consult the appropriate application program page on the <a href="#">Graduate programs of study website</a>.</p>	Term	Start Date	Canadian/US	International	Fall	September	July 1	April 1	Winter	January	November 1	August 1	Summer	May	March 1	December 1	<p>For upcoming application deadlines, please consult the Graduate Program Pages:</p> <p>M.Sc. &amp; M.Eng.:  <a href="https://umanitoba.ca/explore/programs-of-study/electrical-and-computer-engineering-msc-meng">https://umanitoba.ca/explore/programs-of-study/electrical-and-computer-engineering-msc-meng</a></p> <p>Ph.D.:  <a href="https://umanitoba.ca/explore/programs-of-study/electrical-and-computer-engineering-phd">https://umanitoba.ca/explore/programs-of-study/electrical-and-computer-engineering-phd</a></p>
Term	Start Date	Canadian/US	International														
Fall	September	July 1	April 1														
Winter	January	November 1	August 1														
Summer	May	March 1	December 1														
<p><b>1.1.3 Application Fee</b></p> <p>A \$100.00 (CDN) non-refundable fee must accompany an application for admission. The Physician Assistant Studies and Orthodontics programs charge an additional fee of \$25 and \$50, respectively.</p>																	
<p><b>1.1.4 Transcripts</b></p> <p>Unofficial copies of transcripts and final degree certificates are acceptable for initial assessment and provisional admission purposes. Upon admission to the Faculty of Graduate Studies, applicants must arrange for official transcripts from all post-secondary institutions attended to be sent to the Faculty of Graduate Studies, within one (1) month of the date on the admission letter. Applicants will be placed on hold, which prevents registration until all admission requirements have been submitted. <b>All transcripts must arrive in sealed, university-stamped envelopes sent directly from the issuing institution(s) and be accompanied by official and literal English translations</b> (Please refer to Transcripts: International below). For international degrees or where the transcripts do or will not clearly state that a degree has been conferred, a copy of the official degree certificate is also required.</p>																	
<p><b>1.1.5 Transcripts: International</b></p> <p>Where academic records from a country other than Canada are produced in a language other than English, the applicant must arrange for the submission of official literal English translations of all records. To be official, original language documents and English translations must arrive together in envelopes which have been sealed and endorsed by the issuing institution. For international degrees, a copy of the official degree certificate is also required.</p>																	
<p><b>1.1.6 Transcripts: University of Manitoba</b></p>																	

University of Manitoba students are not required to submit University of Manitoba transcripts.	
<p><b>1.1.7 Proficiency in English</b></p> <p>The Faculty of Graduate Studies requires a passing, acceptable English Language Test score in order to offer admission. A successfully completed English Language Proficiency Test from the approved list is required of all applicants unless they have received a secondary school diploma and/or university degree from Canada or one of the countries listed on the <a href="#">English Language Proficiency Test Exemption List</a>. In all cases, test scores older than two (2) years (from the time of completing the test) are invalid.</p> <p>Thresholds required for successful completion are indicated in parentheses.</p> <ul style="list-style-type: none"> <li>• Test of English as a Foreign Language (TOEFL) Internet based -iBT® (86; minimum score of 20 in each of reading, writing, listening and speaking categories). The “best score” will not be considered for admission. Only individual test scores will be used to meet the minimum requirements.</li> <li>• International English Language Testing System (IELTS™) (6.5 in the Academic Module)</li> <li>• Academic English Program for University and College Entrance (AEPUCE) (65%)</li> <li>• PTE Academic (61% overall)</li> </ul> <p><b>Note:</b></p> <p>Some units may require a specific test or test scores greater than those indicated above. Students should check department/unit supplementary regulations for details.</p> <p>Applicants holding secondary school diplomas and/or recognized university degrees from countries on the Faculty of Graduate Studies English Language exemption list are not required to submit an English Language Proficiency score. For more information please see our <a href="#">website</a>.</p>	
<p><b>1.1.8 Letters of Recommendation</b></p> <p>Letters of Recommendation are to be completed via the online application. Recommendation letters submitted via post or email are not accepted. Applicants are required to add their ‘Recommendation Provider(s)’ contact information so that each recommender is sent an automated email notification.</p> <p>Generally, two (2) Letters of Recommendation must be submitted to the Faculty of Graduate Studies. For The number of required recommendation letters for an application for admission is stated on the program’s webpage which is available at this <a href="#">link</a>.</p>	Two (2) letters of recommendation are required unless otherwise requested by the Academic Advisor (Professor).
<p><b>1.1.9 Admission Tests</b></p> <p>Some departments/units require admissions tests, such as the Graduate Record Examination (GRE®) or the Graduate Management Aptitude Test (GMAT™). These requirements are listed in the department/unit’s supplementary regulations. If required, the scores must be submitted at the time of application.</p>	Department of Electrical and Computer Engineering does not require GRE scores.
<p><b>1.1.10 Entrance Requirements</b></p> <p>The minimum standard for acceptance into any category in the Faculty of Graduate Studies is a 3.0 Grade Point Average (GPA) (or equivalent) in the last two (2) previous years of full-time university study (60 credit hours).</p> <p><b>Note:</b> This is the minimum requirement of the Faculty of Graduate Studies and departments/units may have higher standards and additional criteria.</p>	
<b>1.1.11 Eligibility of University of Manitoba Staff Members</b>	

<p>A staff member at The University of Manitoba at the rank of Assistant Professor and above or Instructor 1 and above, is not eligible to apply for admission to a graduate program in the department/unit in which the appointment is held.</p>	
<p><b>1.2 Registration Procedures</b></p> <p><b>1.2.1 Undergraduate Student Registration in Graduate Level Courses</b></p> <p>Undergraduate students may be permitted to register in 7000-level courses or above on recommendation of the department/unit offering the graduate course, subject to the conditions listed below.</p> <ul style="list-style-type: none"> <li>• Undergraduate students must obtain permission from the Department/Unit Head and course instructor before registering for a graduate course.</li> <li>• Only undergraduate students completing an undergraduate degree at the University of Manitoba are eligible to enroll in a graduate course (i.e., undergraduate students from other institutions and those completing courses without registration in a degree program are ineligible for registration in graduate courses).</li> <li>• Undergraduate students are not eligible for enrollment in any graduate course that is cross-listed with an undergraduate course, or that is scheduled to be taught at the same time and location as an undergraduate class.</li> <li>• Undergraduate students will only be eligible to receive graduate-level credit for a course designated as 7000-level or above if at least 75% of the students registered in the course are graduate students.</li> </ul> <p>Undergraduate students who complete a graduate course are not guaranteed admission to a graduate program.</p>	
<p><b>1.2.2 Initial Program Registration</b></p> <p>On admission to a graduate program at the University of Manitoba, students may submit a formal request to the Faculty of Graduate Studies to apply any previously completed graduate courses toward their graduate program requirements, subject to the restrictions listed below.</p> <ul style="list-style-type: none"> <li>• No more than 50% of the coursework required in a graduate program may be imported from credit hours completed during an undergraduate program.</li> <li>• Only courses in which a C+ grade or higher, or the minimum grade required by the program to which the course would be applied, are eligible to be considered towards meeting the requirements of any graduate program.</li> <li>• Any graduate course completed by an undergraduate student may subsequently be applied to a graduate program only if it has not been used toward completion of any other degree program.</li> <li>• Any graduate course completed by an undergraduate student for which a passing grade has been obtained (i.e., C+ or higher) may not be repeated should the student later gain admission to a graduate program.</li> <li>• Courses completed more than seven (7) years prior to the date of awarding a degree may not normally be used for credit towards the degree (please refer to <u>Lapse or Expiration of Credit of Courses</u>).</li> </ul> <p><b>All graduate students must initially register in the term indicated in their letter of acceptance as specified in the Academic Schedule of the Graduate Calendar.</b> Any student not registering by the registration deadline for the term specified in their letter of offer will be required to re-apply for admission; <u>admission is not guaranteed if a student re-applies to the Faculty of Graduate Studies.</u> In exceptional circumstances and with prior approval from the department/unit, students</p>	<p>Students must also receive approval to take courses outside of the ECE Department from their Academic Advisor. If the course is outside the usual program of interest, approval must also be obtained from the ECE Graduate Committee. Otherwise, a course may be taken as not-for-credit towards the student's degree (Occasional Student designation).</p>

<p>may defer registration for up to one (1) year following acceptance into the Faculty of Graduate Studies.</p> <p><b>All programs must be approved by the Head of the major department/unit or designate.</b> Approval to take courses from departments/units outside the major department/unit must be obtained from the outside department/unit.</p> <p>The approval or denial of admission and registration to two (2) concurrent programs rests with the Dean of the Faculty of Graduate Studies in consultation with the department/unit concerned. The request for approval or denial must be submitted to the Faculty of Graduate Studies prior to the student's admission/registration on the "<a href="#">Concurrent Curriculum Permission</a>" form.</p> <p>Where a student does register in two (2) programs, it is important to note that dual registration may affect funding, and that completing a graduate program as a part-time student will affect eligibility for The University of Manitoba Graduate Fellowship (UMGF) and may limit other funding possibilities.</p>	
<p><b>1.2.3 Re-Registration</b></p> <p>All students must re-register in all Fall, Winter and Summer terms of their program until a degree is obtained. <b>Failure to re-register will result in the student being discontinued from their graduate program.</b> A student who has been discontinued and would like to be considered for continuation in a program must apply for re-admission via the standard online admission process. Re-admission is not guaranteed.</p> <p>The notation 'Discontinued Graduate Program' will be placed on the academic record of any graduate student who has failed to maintain continuous registration. Should a student be discontinued, but is in poor academic standing, the notation 'Required to Withdraw' will replace 'Discontinued Graduate Program'.</p> <p>The re-registration requirement does not apply to occasional students, visiting students, Pre-Master's students or students on an Exceptional or Parental Leave of Absence (please refer to "<a href="#">Leave of Absence</a>").</p>	
<p><b>1.2.4 Registration Revisions</b></p> <p>Revisions to registration must be approved by the Department/Unit Head or designate and may be made during the designated periods as published in the <a href="#">Academic Schedule</a> of the Graduate Academic Calendar.</p> <p>Note: Graduate students are not permitted to withdraw from courses without written permission from their Department/Unit Head on recommendation from their advisor/co-advisor (and/or advisory committee). The notation "Required to Withdraw" may be placed on the academic record of any graduate student who has withdrawn from courses without such approval.</p>	
<p><b>1.2.5 Advisor Student Guidelines (ASG)</b></p> <p>All students in thesis/practicum programs, together with their advisor/co-advisor, are required to discuss and complete the ASG as soon as possible after initial registration, prior to the commencement of any research, and no later than at the time of submission of the first Progress Report. The advisor/co-advisor and the student are required to approve the agreement. If the parties cannot agree on one or more component(s) of the Advisor Student Guidelines, the matter should be referred to the Department/Unit Head, Graduate Chair, or the Dean of the Faculty of Graduate Studies. If a student does not have an advisor/co-advisor at this time, the interim advisor* will be required to complete the ASG. A new ASG is to be completed if there is a change in advisor/co-advisor, a co-advisor is added mid-way through the student's program, or if a student transfers programs.</p> <p>* In department/units where the choice of thesis/practicum topic and thesis/practicum advisor are postponed after a student's entry into the program, the Department/Unit Head, within one (1) term, shall appoint a faculty member to advise the student in the</p>	

interim period before the regular advisor is assigned or chosen. Students must have an advisor through to the end of their program in programs requiring an advisor.

### 1.2.6 Western Deans' Agreement

This agreement was established in 1974 as an expression of co-operation and mutual support among universities offering graduate programs in western Canada. Its primary purpose is the reciprocal enrichment of graduate programs throughout western Canada. This agreement is not intended to preclude other agreements between participating institutions. A list of the participating Universities can be found on the [Western Canadian Deans of Graduate Studies website](#). University of Manitoba graduate students interested in participating can learn more about how to apply on the [Registrar's Office website](#).

1.2.6.1 The Western Deans' Agreement normally provides an automatic tuition fee waiver for visiting students. Graduate students paying normal required tuition fees to their home institution will not pay tuition fees to the host institution.

1.2.6.2 Only degree level courses from recognized post-secondary institutions will be considered; courses that are part of certificate or diploma programs will not be approved.

1.2.6.3 Program fees are always to be paid to the home institution, regardless of coursework taken at another institution. Students may be required to pay student, activity, application, or other ancillary fees to the host institution, according to general policies in effect at the host institution. Wherever possible, these fees will also be waived.

1.2.6.4 Students will qualify for the fee waiver if they:

a) Present the "[Authorization Form: Western Deans' Agreement](#)" signed by the University of Manitoba graduate student's Department/Unit Head or advisor/co-advisor to the Faculty of Graduate Studies at least eight (8) weeks prior to the start of the term of the course(s) at the host institution. The Dean of the Faculty of Graduate Studies (or designate) will review and sign the form and submit it to the participating Western Deans' institution at least six (6) weeks prior to the start of the term, specifying the course(s) to be taken for credit toward a graduate degree program at the student's home institution;

b) Are in good standing in a graduate program at the home institution;

c) Do not owe tuition and/or fees at the home institution.

1.2.6.5 Students must meet all requirements as prescribed by the host university's regulations, deadlines, class capacities, and course prerequisites.

1.2.6.6 Registration is possible in courses at both the graduate and undergraduate levels, and in credit courses offered through distance education or other means. To be eligible, courses must be an integral part of the applicant's graduate degree program. Fee waiver is not permitted for audit or non-credit courses.

1.2.6.7 Students must have the Authorization Form approved by the relevant Department/Unit Head and the Faculty of Graduate Studies at the host institution at least one (1) month prior to the commencement of the course(s) requested. The fee waiver is not available retroactively.

1.2.6.8 Students are subject to regulations of the home institution governing credit for the courses to be undertaken. As a condition of registration at the host institution, students will arrange for official transcripts from the host institution to be sent to the home institution confirming successful completion of courses selected.

1.2.6.9 Students must send confirmation of registration and notice of any change to the Registrar's Office of the home institution at the time of registration or course change is completed.

1.2.6.10 Students may not claim fee waivers under the terms of this Agreement for a period of more than three (3) months in total.

1.2.6.11 Each institution has its own regulations regarding the maximum number of transfer credits permitted in a given degree program. A list of the participating Universities can be found on the [Western Canadian Deans of Graduate Studies website](#).

### 1.2.7 Canadian University Graduate Transfer Agreement (CUGTA)

The [CUGTA](#) is to provide students in good standing enrolled in a graduate degree or diploma program at a CAGS member university the opportunity to avail themselves of courses offered at another member institution (host) for transfer credit to the program at their institution (home).

1.2.7.1 The CUGTA provides an application fee waiver for visiting students when applying through this agreement. Tuition fees are not automatically waived, it is up to the host institution whether tuition fees will be charged.

1.2.7.2 Program fees are always paid to the home institution, regardless of coursework taken at another institution. Students may be required to pay tuition, student, activity, application, or other ancillary fees to the host institution, according to general policies in effect at the host institution.

1.2.7.3 Only degree-level courses from recognized post-secondary institutions will be considered; courses that are part of certificate or diploma programs will not be approved.

1.2.7.4 Students must meet all requirements as prescribed by the host university's regulations, deadlines, class capacities, and course prerequisites.

1.2.7.5 Registration is possible in courses at both the graduate and undergraduate levels, and in credit courses offered through distance education or other means. To be eligible, courses must be an integral part of the applicant's graduate degree program.

1.2.7.6 Students must submit the CUGTA form to their home University at least eight (8) weeks prior to the start of classes.

1.2.7.7 Students must have the Authorization Form approved by the relevant Department/Unit Head and the Faculty of Graduate Studies at the host institution at least one (1) month prior to the commencement of the requested course(s).

1.2.7.8 Students are subject to the home institution's regulations concerning credit for the courses to be taken. As a condition of registration at the host institution, students will arrange for official transcripts from the host institution to be sent to the home institution confirming successful completion of course(s) selected.

1.2.7.9 Students must send confirmation of registration and notice of any changes to the home institution at the time of registration/registration revision is completed.

1.2.7.10 Each institution has its own regulations regarding the maximum number of transfer credits that are permitted in a given degree program.

1.2.7.11 Most but not all Canadian Universities that are a member of the Canadian Association for Graduate Studies participate in the CUGTA. Student must contact the host institution for information on whether they accept the CUGTA. <https://cags.ca/institutional-members/>

### 1.3 Course Classifications

**1.3.1 General Classifications**

Students who register themselves through Aurora Student Information System (Aurora Student) must have prior approval of the Department/Unit Head or designate. Students registering through Aurora Student should add only those courses that are a Major (Standard "S") course in their program. Courses with Auxiliary "X", Audit "A", or Occasional "O" status (see below) must be added by the department/unit.

"X" Auxiliary course: Course is not a major requirement of the program but is required/recommended by the student's advisor/co-advisor. The student's advisor/co-advisor and Department/Unit Head must determine if there is a valid need for the registration in courses under the X classification. Extra courses that are not part of the Master's or Ph.D. program but which are specified and required/recommended by the student's advisor/co-advisor, may be classified as "X" and the grade will not be included in the degree GPA which appears on the transcript. However, "X" course grades may be used in the calculation of the GPA for continuation in the program and a minimum grade requirement may be required for "X" coursework by the department/unit. (Please consult the individual department/unit's [supplementary regulations](#).) Additionally, "X" courses are used in the calculation of the GPA for the purposes of Admission and Awards (e.g., the University of Manitoba Graduate Fellowship (UMGF) and International Graduate Student Scholarship (IGSS)). (A maximum of twelve (12) credit hours under the "X" course classification is permitted while registered in a given program.

"A" Audit course: Course is not taken for credit. No grade is recorded. Additional fees will be assessed.

"O" Occasional course: Course is not a requirement of the program. Additional fees will be assessed.

Note:

- Students are not permitted to audit a course and take the same course for credit at a later date.
- Changes in course classifications are regarded as course/program changes and may not be made without approval (refer to [Registration Revision](#)) or after the deadline dates for course changes as indicated in the Academic Schedule of the *Calendar*.

**1.3.2 Incomplete Courses**

Students who are unable to complete the term work prescribed in a course may apply to the instructor prior to the end of lectures for an incomplete grade and time extension for work completion. Even if the student is granted an incomplete grade ("I") and an extension for work, the student will still need to write the final examination if one is scheduled for the course.

Taking into account the results of the final examination, the value of the term work completed, and the extent of the incomplete term work, the instructor will calculate the temporary grade using a zero value for incomplete work. In no case will the satisfaction of the incomplete requirements cause a grade to be lowered.

The following maximum extensions are allowed:

- August 1st for courses terminated in April
- December 1st for courses terminated between May and August
- April 1st for courses terminated in December

If a final grade is not reported within one (1) month of the extension deadline, the letter "I" will be dropped, and the grade will remain as awarded. The student's opportunity to improve the grade will have lapsed. Please visit the [Registrar's Office](#) website for further information.



**1.3.3 Continuing Courses (CO)**

For those graduate level courses (6000, 7000, and 8000) which are being taken by students enrolled in the Faculty of Graduate Studies and which continue beyond the normal academic term, the instructor shall recommend that a grade classification of CO be used until such time as a final grade can be established. If the course is not completed by August 31, the student must re-register for the course(s).

In the absence of an assigned mark of CO, the student may receive a mark of F in the course.

**Note:**

With the exception of "GRAD" courses, a CO will normally not be permitted longer than twelve (12) months. In exceptional circumstances, where a CO grade is requested for a second twelve (12) months, at the time the CO grade is submitted, the instructor and Department/Unit Head must also submit the "Recommendation for Continuing Status of a Course" form stating the reason for the CO and the deadline by which the course must be completed.

**1.3.4 Cross-Listed Courses**

Cross-listed courses are defined as courses taught at the same time and in the same location.

The regulations below place limits on the extent to which cross-listed courses may be used to meet graduate program requirements.

1. In order to receive credit for any 7000-level course that is cross-listed with a 3000-, 4000-, or 5000-level undergraduate course, the 7000-level course must have a distinct syllabus, and the course content and evaluation methods must be at the graduate-level.
2. Graduate students will not receive credit toward meeting program requirements for any 7000-level course cross-listed with a 1000- or 2000-level undergraduate course unless prior permission is granted by the Dean of the Faculty of Graduate Studies or designate.
3. Graduate students will not receive credit toward meeting program requirements for any 7000-level course cross-listed with a previously completed course.

**1.4 Student Status/Categories of Students****1.4.1 Full-Time and Part-Time Students**

Graduate students are admitted as full-time students. Graduate student status is not determined by the number of credit hours taken per term, unless the student is admitted as Pre-Master's. Therefore, students who spend much of the time in a laboratory or library engaged in research or writing a thesis/practicum, or who spend part of the academic year engaged in research elsewhere, are regarded as full-time students.

Student status should be determined by the student and advisor/co-advisor, and changes must be requested on the "Part-Time Status" form. The form must be approved by the Department/Unit Head and submitted to the Faculty of Graduate Studies. A change to part-time status cannot be granted solely for financial circumstances. Students are not permitted to change to part-time status more than once within their program. Once a student declares as part-time, they may return to full-time status once, but cannot subsequently revert to part-time. Declaration of full/part time status must be made prior to the end of the registration revision period in the Fall and/or Winter terms and within one (1) month of the start of the Summer term.

For every full year (12 months) that a Master's student is declared as part time, they will receive an additional four (4) months in time to complete their program. For every two (2) full years (24 months) a Master's student is declared as part time, they will

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<p>receive an additional year (12 months) in time to complete their program. Master's students who declare part time status for less than one year (12 months) are not permitted any additional time to complete their program. Retroactive status changes will not be made.</p> <p>For every two (2) full years (24 months) that a Ph.D. student is declared as part time, they will receive an additional four (4) months in time to complete their program. Ph.D. students who declare part time status for less than two (2) full years (24 months) are not permitted any additional time to complete their program. Retroactive status changes will not be made.</p>	
<p><b>1.4.2 Pre-Master's Students</b></p> <p>In specific cases where the academic background of the student is judged to be insufficient for the given program in a department/unit, the department/unit may recommend that the student be admitted to a Pre-Master's program of study. The Pre-Master's program is intended to bring the student's standing to approximately the level of an Honours graduate in the major department/unit, and to satisfy prerequisites for courses. See Section 3 General Regulations: Pre-Master's.</p>	
<p><b>1.4.3 Occasional Students</b></p> <p>A student wishing to take graduate courses with no intention of applying them toward an advanced degree at The University of Manitoba is classified as an occasional student. Occasional students must apply via the regular FGS admission process (to the department/unit offering the course or majority of courses) and meet the same degree and grade point average entrance requirements as regular graduate students and must write final examinations in the courses taken (unless audited), but will not receive credit toward a degree. In special circumstances, an occasional student may apply for permission to proceed to a degree program and also apply for transfer, for credit, of courses previously taken in the "occasional" category.</p> <p>Occasional student status is not advised for international students due to study permit limitations. International students interested in becoming an occasional student should contact the Graduate Studies admissions office and University of Manitoba International Centre.</p> <p>Note:</p> <ol style="list-style-type: none"> <li>1. Transfer of courses from the "occasional" category to a degree program is not automatic: request for advance credit must be made within the first year of a degree program on the "<u>Advance Credit – Transfer of Credit</u>" form.</li> <li>2. Fees paid by a student while registered as an occasional student are not transferable to a degree program at a later date..</li> <li>3. Registration in the occasional student category can be for no more than one (1) academic year (September 1 - August 31) without reapplication.</li> <li>4. The majority of coursework per academic year must be taken at the graduate level while registered as an occasional student.</li> <li>5. Students admitted as Occasional are required to upload proof of instructor permission (in the application for admission) to take the courses as Occasional.</li> </ol>	
<p><b>1.4.4 Joint Masters (With the University of Winnipeg)</b></p> <p>The University of Manitoba and the University of Winnipeg offer four (4) joint Master's programs: History, Religion, Public Administration, and Peace and Conflict Studies. The University of Manitoba, Faculty of Graduate Studies is responsible for the administration of the joint programs, and students must complete the regular University of Manitoba application and registration forms. Students taking Pre-Master's qualifying work for these programs register at the university where the courses are being taken.</p>	

**1.4.5 Visiting Students**

Visiting students are students who are registered at another institution who are taking one (1) or more courses at The University of Manitoba on a Letter of Permission from their home university. Visiting students must submit an online application, along with a \$100.00 (CDN) non-refundable application fee, in addition to copies of transcripts from all institutions attended and a successfully completed English Language Proficiency Test from the approved list, if applicable. Applications must be submitted to the Faculty of Graduate Studies a minimum of one (1) month prior to the start of the intended term of study.

**Note:**

1. Fees paid by a student while registered as a visiting student are not transferable to a degree program at a later date.
2. Registration in the visiting student category can be for no more than one (1) academic year (September 1 - August 31) without reapplication.
3. The majority of coursework per academic year must be taken at the graduate level while registered as a visiting student.
4. Registration at two different universities on a Letter of Permission (Including Western Dean's and CUGTA) must have permission from the Dean of Graduate Studies. Students must provide a letter from their home department stating that they are in good academic standing and that they are permitted to take courses at multiple institutions.

Visiting students must obtain an Academic Advisor who is a member of the UM ECE Department and who agrees to supervise the student during the student's stay at the University of Manitoba.

**SECTION 2: Academic Performance - General****2.1 General Note**

**Students are responsible for ensuring that they meet all degree and program requirements.** The advisor (and co-advisor, if applicable), advisory committee, and department/unit must also ensure that each student follows Faculty of Graduate Studies regulations, department/unit supplementary regulations and meets all program requirements. The Faculty of Graduate Studies performs a final check of Faculty of Graduate Studies minimum requirements for each student just prior to graduation. Students are cautioned, therefore, to periodically check all regulations with respect to their degree requirements. Failure to meet all the requirements will render a student ineligible to graduate.

Departments/Units may make recommendations with respect to the regulations concerning minimum academic performance; however, enforcement of academic regulations rests with the Faculty of Graduate Studies. The following procedures apply to recommendations made by departments/units:

The department/unit is responsible for informing the Faculty of Graduate Studies when a student's performance is unsatisfactory in research or coursework and the department/unit must outline any recommended remedial action(s).

The department/unit must notify the student of the deficiency and of its recommendation.

If the department/unit does not recommend remediation, or if the student fails to satisfy any required remedial action, the student may be Required to Withdraw from the Faculty of Graduate Studies.

**Note:**

When a graduate student is Required to Withdraw from a program of study, the notation on the academic record will be: "Required to Withdraw".

A student who has been Required to Withdraw from a graduate program may be permitted to apply for admission to another graduate program only if the application for admission is approved by the Dean of the Faculty of Graduate Studies.

Voluntary withdrawal from a program is only permitted if the student is in good academic standing. Good academic standing includes, but is not limited to, the regulations contained in sections 2.3 Academic Performance and 2.4 Performance Related to Coursework without exceeding the maximum time permitted to complete a program.

Recommendations of departments/units may supersede student requests for voluntary withdrawal.

**2.2 Bona Fide Academic Requirements (BFAR)**

The following Bona Fide Academic Requirements (BFAR) represent the core academic requirements a graduate student must acquire in order to gain, and demonstrate acquisition of, essential knowledge and skills. Students must also meet additional requirements that may be specified for their program.

Students must meet requirements as outlined in both BFARs and Supplementary Regulation documents as approved by Senate.

Unless otherwise indicated, students may elect to complete any/all of the following requirements with or without appropriate and authorized assistive technology/aids. Students must consult Student Accessibility Services (SAS) regarding authorization for these procedures. Students may also refer to the University's [Accessibility Policy and Procedures](#).

BFAR Statement	Taught	Assessed
Student must successfully complete a co-operative experience or practicum, if required by their program.	Master's <a href="#">GRAD 7030</a>	<a href="#">GRAD 7030</a>
Student must successfully complete a comprehensive exam, project, studio exhibition, or equivalent, as required by their program and determined by the assigned examining committee.	<a href="#">GRAD 7010</a> <a href="#">GRAD 7050</a> <a href="#">GRAD 7090</a> <a href="#">GRAD 7200</a>	<a href="#">GRAD 7010</a> <a href="#">GRAD 7050</a> <a href="#">GRAD 7090</a> <a href="#">GRAD 7200</a> Examining/Adjudication Committee
Student must produce a recorded/published thesis commensurate with degree being sought.	Master's <a href="#">GRAD 7000</a> Doctoral <a href="#">GRAD 8000</a>	<a href="#">GRAD 7000</a> <a href="#">GRAD 8000</a>
Student must successfully defend their thesis (where required), as determined by the assigned examining committee, in real-time.	Master's <a href="#">GRAD 7000</a> Doctoral <a href="#">GRAD 8000</a>	<a href="#">GRAD 7000</a> <a href="#">GRAD 8000</a>
Student in doctoral program must complete a candidacy exam (or equivalent) as required by their program and determined by the assigned examining committee.	<a href="#">GRAD 8010</a>	<a href="#">GRAD 8010</a>
Student must demonstrate knowledge of the University of Manitoba's policy on academic integrity, plagiarism, and cheating.	<a href="#">GRAD 7500</a>	<a href="#">GRAD 7500</a>
Student must conduct research in a safe and ethical manner, referring to their respective ethics board and supervisor(s) to ensure respect is	<a href="#">GRAD 7300</a>	<a href="#">GRAD 7300</a>

maintained for: human dignity and/or animal welfare; vulnerable persons; informed consent; justice and diversity; confidentiality and privacy; beneficence and non-maleficence in the work that they conduct.

Student must complete coursework as required by their program.

Individual unit BFARs available on the [Graduate Studies website](#).

**2.3 Academic Performance**

Student progress shall be reported **at least** annually, (but not to exceed once every four (4) months), to the Faculty of Graduate Studies on the “Progress Report” form. Performance that remains “Satisfactory” throughout the year does not need to be reported to the Faculty of Graduate Studies more than annually, but should remain on file in the department/unit.

Students who fail to maintain satisfactory performance may be Required to Withdraw on the recommendation of the Graduate Chair and/or Department/Unit Head to the Dean of the Faculty of Graduate Studies on the “Progress Report” form. Students who receive two (2) consecutive “in need of improvement” or one (1) “unsatisfactory” rating will normally be Required to Withdraw from the Faculty of Graduate Studies and the notation on the student record will be “Required to Withdraw”.

**2.4 Performance in Coursework**

A minimum degree grade point average (DGPA) of 3.0 with no grade below C+ must be maintained to continue in the Faculty of Graduate Studies. Departments/Units may specify, in their supplementary regulations, standards that are higher than those of the Faculty of Graduate Studies. Students who fail to maintain the specified grades or DGPA will be Required to Withdraw unless a department/unit recommends remedial action (subject to approval by the Dean of the Faculty of Graduate Studies).

A student may be permitted to remove deficiencies in grades by repeating the course or replacing it with an equivalent substitute course as determined by the student’s department/unit. In the event that a substitute course is used for remediation, the substituted course must be at the same or higher level as the failed course (e.g., at the graduate level for a failed graduate-level course). Each failed course may be repeated or replaced only once, to a maximum of six (6) credit hours of remediated coursework. If a course is repeated or replaced, the higher grade obtained will be used in the determination of the degree grade point average. Students receiving a grade of “C” or less in more than six (6) credit hours of coursework are normally Required to Withdraw, unless otherwise stated in the department/unit’s supplementary regulations. A student may also be permitted the opportunity to improve a low DGPA as determined by the Graduate Chair of the student’s department/unit through the registration and completion of additional course(s).

Students are normally expected to complete remedial action by the end of the subsequent term.

Graduate students are not permitted to repeat a previously passed course, unless the department/unit recommends that course(s) be re-taken if they have lapsed or expired (refer to Master’s Degree General Regulations and Doctor of Philosophy General Regulations).

**Note:**

In exceptional circumstances, the department/unit may appeal to the Faculty of Graduate Studies for approval of remedial recommendation(s) falling outside those prescribed above.

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>Supplemental exams are not permitted to students in the Master's or Ph.D. program, unless otherwise stated in the department/unit's supplementary regulations.</p> <p>A summary of all actions taken administratively are to be reported to the Faculty of Graduate Studies Executive Committee.</p>	
<p><b>2.5 Mandatory Academic Integrity Course</b></p> <p>All students, including those in a Pre-Master's program, are required to register for and complete <u>GRAD 7500 Academic Integrity Tutorial</u> (0 credit hours) within their first term of initial registration. Université de Saint-Boniface graduate students may choose to complete <u>GRAD 7500</u> or the French-language equivalent, <u>GRAD 7501</u>.</p> <p>Failure to complete this course will result in a registration hold and a grade of "F/NP" being assigned to the course which may lead to being "Required to Withdraw from the graduate program."</p> <p><b>Notes:</b></p> <p>Students who have successfully completed GRAD 7500 in a previous program are not normally required to repeat the course upon entry to their new program so long as no more than one (1) term separates one program from another.</p> <p>Students who have not completed GRAD 7500 or GRAD 7501 prior to embarking on a leave of absence must register in the course upon their return to their program.</p> <p>Visiting and Occasional students are not expected to complete <u>GRAD 7500</u>. For further information see <u>GRAD 7500 FAQ</u>.</p>	
<p><b>2.6 Mandatory Research Integrity Online Course</b></p> <p>All students, including those in a Pre-Master's program, are required to register for and complete <u>GRAD 7300</u> prior to applying to any ethics boards which are appropriate to the student's research, or within the student's first year, whichever comes first.</p> <p>Failure to complete this course will result in a registration hold and a grade of "F/NP" being assigned to the course which may lead to being "Required to Withdraw from the graduate program."</p> <p><b>Notes:</b></p> <p>Students who have successfully completed GRAD 7300 in a previous program are not normally required to repeat the course upon entry to their new program so long as no more than one (1) term separates one program from another.</p> <p>Students who have not completed GRAD 7300 prior to embarking on a leave of absence must register in the course upon their return to their program.</p> <p>Visiting and Occasional students are not expected to complete <u>GRAD 7300</u>. For further information see <u>GRAD 7300 FAQ</u>.</p>	
<p><b>2.7 Graduate Focus on Aging Concentration</b></p> <p>The Graduate Focus on Aging Concentration is available to any interested student who is enrolled in the Faculty of Graduate Studies and whose graduate work is concentrated in aging. To be eligible, a "F" form must be submitted to the Faculty of Graduate Studies. Master's or Doctoral students must complete the requirements of the program to which they have been admitted and the requirements of the Graduate Focus on Aging Concentration.</p> <p>The Graduate Focus on Aging Concentration requirements include:</p> <ol style="list-style-type: none"> <li>1. Six (6) credit hours of graduate (7000-level or higher) courses that focus on aging and are approved by the student's Advisory Committee;</li> </ol>	

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>2. A thesis/practicum on an aging-related topic;</p> <p>3. Having at least one advisory committee member who is officially affiliated with the Centre on Aging as a <u>Research Affiliate</u>; and</p> <p>4. Participating in the annual Spring Research Symposium of the Centre on Aging at least once as a poster presenter.</p> <p>Graduate students may be able to attain their 6 credit hours of courses within the existing course requirements of their graduate program. Students must attain a minimum grade of C+ (or higher, if stipulated in the department/unit supplementary regulations), for the required 6 credit hours of aging courses.</p> <p>Graduate students who are not in a thesis/practicum-based program will be considered on a case-by-case basis and will require approval in advance by the Dean of FGS.</p> <p>Student progress in the Graduate Focus on Aging Concentration would normally be discussed with the student's Advisory committee, and progress documented on the "Student Intention to Receive the <u>Graduate Focus on Aging Concentration</u>" form which must accompany the Progress Report form submitted to the Faculty of Graduate Studies. The final <u>Graduate Focus on Aging Concentration Completion</u> form must be submitted no later than at least one week prior to the FGS deadline for graduands to submit theses/practica and other reports.</p>	
<p><b>SECTION 3: General Regulations: Pre-Master's</b></p> <p><b>3.1 Admission and Program Requirements</b></p> <p>Graduates of bachelor degree programs with a minimum Grade Point Average (GPA) of 3.0 (or equivalent) in the last two (2) previous years of full-time university study (60 credit hours) may be considered for admission to a Pre-Master's program. Departments/Units may specify higher or additional criteria. <u>Admission to a Pre-Master's program does not guarantee future admission to a Master's program.</u></p> <p>The purpose of the Pre-Master's program of study is to bring a student's background up to the equivalent of a required four (4)-year undergraduate degree and/or fulfill deficiencies in knowledge of a particular discipline. Departments/Units should assign to students, as part of their Pre-Master's program of study, an appropriate number of applicable upper level (3000 or 4000) undergraduate courses. These courses may not be transferred into a Master's program. Pre-Master's students are not normally allowed to register in 7000-level courses or above, with the exception of <u>GRAD 7300 and GRAD 7500 (or GRAD 7501)</u>, unless prior permission is granted by the Dean of the Faculty of Graduate Studies or designate. If permission is granted, students may take a maximum of three (3) credit hours at the 7000 level or above and these credit hours must be taken as Occasional ("O"). A Pre-Master's student may only transfer a maximum of three (3) credit hours at the 7000 level into a prospective Master's program of study.</p>	<p>The Pre-Master's program is available only to students who:</p> <ol style="list-style-type: none"> <li>1. have received a Bachelor's degree from an accredited university offering only a three-year Bachelor's degree program;</li> <li>2. do not have a 4-year Bachelor's or Master's degree in electrical or computer engineering or a related field.</li> </ol> <p>A minimum GPA of 3.0 and acceptance by an Academic Advisor in the Department of Electrical and Computer Engineering at the University of Manitoba is required.</p> <p><b><u>Required Coursework:</u></b></p> <p>Credit hours required for the completion of the Pre-Master's program is dependent on the advice of the Academic Advisor and should be approved by the ECE Graduate Committee.</p>
<p><b>3.2 Academic Performance</b></p> <p>3.2.1. The Department/Unit Head is responsible for assigning the courses and monitoring the progress of each student.</p> <p>3.2.2. A minimum degree grade point average of 3.0 with no grade below C+ must be maintained to continue in a Pre-Master's program. Students who fail to maintain this standing will be Required to Withdraw unless remedial action recommended by the department/unit (as described below) is approved by the Dean of the Faculty of Graduate Studies.</p> <p>3.2.3. Students deficient in six (6) hours of credit or less may be permitted to write a supplemental examination (when offered in the department/unit's supplementary regulations) in courses in which a grade of C or less was obtained.</p>	

3.2.4. Students deficient in six (6) hours of credit or less with a grade of C, D, or F in a course or courses may be permitted, if the overall average is C or better, to write one (1) supplemental examination in each course (when permitted by the department/unit's supplementary regulations), to repeat the courses, or to take equivalent substitute courses.

A student may be permitted to remove deficiencies in grades by writing a supplemental examination or repeating courses only one (1) time for each course to a maximum of nine (9) credit hours of remedial coursework.

If a course is repeated or a supplemental examination is written, the highest grade obtained in that course will be used in the determination of the degree GPA.

The degree GPA is cumulative in a Pre-Master's program if more than one (1) year is required to complete the course requirements.

A summary of all action taken administratively is to be reported to the Faculty of Graduate Studies Executive Committee.

**SECTION 4: General Regulations: Micro-Diploma**

**4.1 Program Requirements**

A Graduate Micro-Diploma is a short, flexible program of study focused on core knowledge in a field or interdisciplinary field of study at the graduate level. A Graduate Micro-Diploma consists of a minimum of six (6) credit hours to a maximum of nine (9) credit hours of coursework at the 7000-level or above. It may be stand alone and/or embedded in a graduate degree. A minimum of six (6) credit hours must be delivered by The University of Manitoba.

All students should consult department/unit supplementary regulations for specific details regarding a particular Graduate Micro-Diploma.

**4.2 Admission**

Students who are eligible to be considered for direct admission to a program of study leading to the Graduate Micro-Diploma include:

- Graduates of four (4)-year undergraduate degree programs (or equivalent as deemed by the Faculty of Graduate Studies) from:
  - Canadian institutions empowered by law to grant degrees; or
  - Colleges and universities outside Canada which are officially recognized by the Faculty of Graduate Studies.
- Graduates from first-cycle Bologna compliant degrees.
- Students who have completed a Pre-Master's program from:
  - The University of Manitoba (see Section 3: General Regulations - Pre-Master's); or
  - Canadian institutions empowered by law to grant degrees; or
  - Colleges and universities outside Canada which are officially recognized by The Faculty of Graduate Studies.

All students applying for a Graduate Micro-Diploma program must have attained a minimum GPA of 3.0 in the last two (2) previous years of full-time university study (60 credit hours). This includes those applying for direct admission and those entering from a Pre-Master's program. Students who meet the minimum requirements for admission to the Faculty of Graduate Studies are not guaranteed admission.

**Note:** This is the minimum requirement of the Faculty of Graduate Studies and departments/units may have higher standards and additional criteria.

**4.3 Performance in Coursework**



A minimum degree grade point average (DGPA) of 3.0 with no grade below C+ must be maintained to continue in the Faculty of Graduate Studies. Departments/Units may specify, in their supplementary regulations, standards that are higher than those of the Faculty of Graduate Studies. Students who fail to maintain the specified grades or DGPA will be Required to Withdraw unless a department/unit recommends remedial action. Any such action must be approved by the Dean of the Faculty of Graduate Studies.

A student may be permitted to remediate deficiencies in grades by repeating the course or replacing it with an equivalent substitute course as determined by the department/unit. In the event that a substitute course is used for remediation, the substituted course must be at the same or higher level as the failed course (e.g., at the graduate level for a failed graduate-level course). Each failed course may be repeated or replaced only once, to a maximum of three (3) credit hours of coursework. If a course is repeated or replaced, the highest grade obtained will be used in the determination of the degree grade point average. Students receiving a grade of "C" or less in more than three (3) credit hours of coursework are normally Required to Withdraw from the Micro-Diploma, unless otherwise stated in the department/unit's supplementary regulations. A student may also be permitted the opportunity to improve a low DGPA as determined by the Graduate Chair of the student's department/unit through the registration and completion of additional course(s).

Students are normally expected to complete remedial action by the end of the subsequent term.

Graduate students are not permitted to repeat a previously passed course, unless the department/unit recommends that course(s) be re-taken if they have lapsed or expired (refer to Master's Degree General Regulations and Doctor of Philosophy General Regulations).

**Note:**

In exceptional circumstances, the department/unit may appeal to the Faculty of Graduate Studies for approval of remedial recommendation(s) falling outside those prescribed above.

Supplemental exams are not permitted to students in the Graduate Micro-Diploma program, unless otherwise stated in the department/unit's supplementary regulations.

**4.4 Time in Program**

The expected time-to-completion for students in the Micro-Diploma program is one (1) academic year (i.e., three (3) consecutive terms). Micro-Diploma students are subject to the same re-registration requirements as all other graduate students.

**4.5 Transfer Credit**

Courses within a program of study may be taken elsewhere and transferred for credit at The University of Manitoba. All such courses:

- must be approved for transfer to the program of study by the department/unit and the Faculty of Graduate Studies before the student may register for them;
- are considered on an individual basis;
- cannot normally be used for credit towards another degree;
- may not exceed three (3) credit hours of coursework required of the student's Graduate Micro-Diploma program at The University of Manitoba, so long as six (6) credit hours of the Graduate Micro-Diploma program is taken at the University of Manitoba.

Permission is granted in the form of a Letter of Permission which may be obtained by making an application to the Faculty of Graduate Studies; an original transcript and course equivalency must be provided.

**4.6 Recognition for Credit**

Graduate-level courses completed as part of a Graduate Micro-Diploma may be recognized toward a Graduate Diploma or graduate degree program (where appropriate) and subject to the Senate approved program regulations. Graduate Micro-Diplomas may be stackable or laddered (refer to definitions per the [Certificate and Diploma Framework](#)) into Graduate Diplomas or graduate degree programs in same or related fields of study.

**SECTION 5: General Regulations: Diploma****5.1 Program Requirements**

A graduate diploma is a structured program of study focused on developing graduate-level knowledge in a field or interdisciplinary field of study. A graduate diploma consists of a minimum of twelve (12) credit hours to a maximum of eighteen (18) credit hours of coursework primarily at the 7000-level or above. It is a stand-alone program. A minimum of 50% of the credit hours must be delivered by The University of Manitoba.

All students should consult department/unit supplementary regulations for specific details regarding a particular Graduate Diploma.

**5.2 Admission**

Students who are eligible to be considered for direct admission to a program of study leading to the diploma include:

- Graduates of four (4)-year undergraduate degree programs (or equivalent as deemed by the Faculty of Graduate Studies) from:
  - Canadian institutions empowered by law to grant degrees; or
  - Colleges and universities outside Canada which are officially recognized by the Faculty of Graduate Studies.
- Graduates from first-cycle Bologna compliant degrees.
- Students who have completed a Pre-Master's program from:
  - The University of Manitoba (see [General Regulations - Pre-Master's](#)); or
  - Canadian institutions empowered by law to grant degrees; or
  - Colleges and universities outside Canada which are officially recognized by The Faculty of Graduate Studies.

All students applying for a diploma program must have attained a minimum GPA of 3.0 (or equivalent) in the last two (2) previous years of full-time university study (60 credit hours). This includes those applying for direct admission and those entering from a Pre-Master's program. Students who meet the minimum requirements for admission to the Faculty of Graduate Studies are not guaranteed admission.

**Note:** This is the minimum requirement of the Faculty of Graduate Studies and departments/units may have higher standards and additional criteria.

**5.3 Performance in Coursework**

A minimum degree grade point average (DGPA) of 3.0 with no grade below C+ must be maintained to continue in the Faculty of Graduate Studies. Departments/Units may specify, in their supplementary regulations, standards that are higher than those of the Faculty of Graduate Studies. Students who fail to maintain the specified grades or DGPA will be Required to Withdraw unless a department/unit recommends remedial action. Any such action must be approved by the Dean of the Faculty of Graduate Studies.

A student may be permitted to remove deficiencies in grades by repeating the course or replacing it with an equivalent substitute course. In the event that a substitute course is used for remediation, the substituted course must be at the same or higher level as the failed course (e.g., at the graduate level for a failed graduate-level course). Each failed course may be repeated or replaced only once, to a maximum of three (3) credit hours of remediated coursework. If a course is repeated or replaced, the highest grade obtained will be used in the determination of the degree grade point average. Students receiving a grade of "C" or less in more than three (3) credit hours of coursework are normally Required to Withdraw, unless otherwise stated in the department/unit's supplementary regulations. A student may also be permitted the opportunity to improve a low DGPA as determined by the Graduate Chair of the student's department/unit through the registration and completion of additional course(s).

Students are normally expected to complete remedial action by the end of the subsequent term.

Graduate students are not permitted to repeat a previously passed course, unless the department/unit recommends that course(s) be re-taken if they have lapsed or expired (refer to Master's Degree General Regulations and Doctor of Philosophy General Regulations).

**Note:**

In exceptional circumstances, the department/unit may appeal to the Faculty of Graduate Studies for approval of remedial recommendation(s) falling outside those prescribed above.

Supplemental exams are not permitted to students in the Graduate Diploma program, unless otherwise stated in the department/unit's supplementary regulations.

**5.4 Time in Program**

The expected time-to-completion for students in the Diploma program is the same as the Master's. The minimum time is equivalent to two (2) terms (8 months) and the maximum time allowed for the completion of the Diploma is four (4) years for students declared as full-time and six (6) years for students declared as part-time (see Student Status/Categories of Students for information on calculating maximum time for students). Diploma students are subject to the same re-registration requirements as all other graduate students.

**5.5 Transfer Credit**

Courses within a program of study may be taken elsewhere and transferred for credit at The University of Manitoba. All such courses:

- must be approved for transfer to the program of study by the department/unit and the Faculty of Graduate Studies before the student may register for them;
- are considered on an individual basis;
- cannot be used for credit towards another degree;
- may not exceed 50% of the credit hours of coursework required of the student's Graduate Diploma program at The University of Manitoba.

Permission is granted in the form of a Letter of Permission which may be obtained by making an application to the Faculty of Graduate Studies; an original transcript and course equivalency must be provided.

**5.6 Recognition for Credit**

Graduate-level courses completed as part of a Graduate Diploma may be recognized toward a graduate degree program (where appropriate) and subject to the Senate approved program regulations. Graduate Diplomas may be stackable or laddered (refer

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>to definitions per the <a href="#">Certificate and Diploma Framework</a>) into graduate degree programs in same or related fields of study.</p>	
<p><b>SECTION 6: General Regulations: Master's</b></p> <p><b>6.1 General</b></p> <p>Although general regulations apply to all students, individual departments/units may have additional regulations that supplement these general regulations. All such supplementary regulations must be approved (as specified by the By-Laws of the Faculty of Graduate Studies), be published and available to students (please refer to the following <a href="#">link</a>), and be kept on record in the Faculty of Graduate Studies. All students should consult department/unit supplementary regulations for specific details regarding admission, program requirements, progression, and completion.</p> <p>Individual departments/units may offer Master's programs by one or more of the following:</p> <ul style="list-style-type: none"> <li>• Thesis/practicum-based;</li> <li>• Course-based;</li> <li>• Comprehensive Exam;</li> <li>• Project;</li> <li>• Major research paper.</li> </ul>	<p>The Department of Electrical and Computer Engineering offers two Master's Programs:</p> <p>Master of Engineering (terminal degree); and</p> <p>Master of Science.</p>
<p><b>6.2 Admission</b></p> <p>Students who are eligible to be considered for direct admission to a program of study leading to the Master's degree include:</p> <ul style="list-style-type: none"> <li>• Graduates of four (4)-year undergraduate degree programs (or equivalent as deemed by the Faculty of Graduate Studies) from: <ul style="list-style-type: none"> <li>○ Canadian institutions empowered by law to grant degrees; or</li> <li>○ Colleges and universities outside Canada which are officially recognized by the Faculty of Graduate Studies.</li> </ul> </li> <li>• Graduates from first-cycle Bologna compliant degrees.</li> <li>• Students who have completed a Pre-Master's program from: <ul style="list-style-type: none"> <li>○ The University of Manitoba (see <a href="#">General Regulations - Pre-Master's</a>); or</li> <li>○ Canadian institutions empowered by law to grant degrees; or</li> <li>○ Colleges and universities outside Canada which are officially recognized by The Faculty of Graduate Studies.</li> </ul> </li> </ul> <p>All students applying for a Master's degree program must have attained a minimum GPA of 3.0 (or equivalent) in the last two (2) years of full-time university study (60 credit hours). This includes those applying for direct admission and those entering from a Pre-Master's program. Students who meet the minimum requirements for admission to the Faculty of Graduate Studies are not guaranteed admission.</p> <p><b>Note:</b> This is the minimum requirement of the Faculty of Graduate Studies and departments/units may have higher standards and additional criteria.</p>	<ol style="list-style-type: none"> <li><b>1. Master of Engineering (M.Eng.) (terminal degree)</b> <ol style="list-style-type: none"> <li>a. Acceptance by an Academic Advisor is required;</li> <li>b. Courses, in area of concentration, are used to evaluate admissibility of students into this program;</li> <li>c. Minimum GPA of 3.0;</li> <li>d. A student may not go on to a Ph.D. program with a Master of Engineering degree (terminal degree).</li> </ol> </li> <li><b>2. Master of Science (M.Sc.)</b> <ol style="list-style-type: none"> <li>a. Acceptance by an Academic Advisor is required;</li> <li>b. Minimum GPA of 3.0;</li> </ol> </li> </ol> <p>Students applying to either of our Master programs are required to have received tentative approval or acceptance by a professor in the Department of Electrical and Computer Engineering.</p>
<p><b>6.3 Program Requirements</b></p> <p>In general, students must complete one of the programs of study described below for the Master's degree. However, the program of study is determined by the department/unit and may follow the department/unit's supplementary regulations. . Some programs are subject to an external accrediting body. In such programs, the credit hours and course requirements shall reflect the requirements of the</p>	

department/unit's external accrediting body. Students should refer to department/unit supplementary regulations.

Any single course cannot be used for credit toward more than one degree.

### 6.3.1 Thesis/Practicum Route

A minimum of twelve (12) credit hours of coursework, unless otherwise stated in the department/unit's supplementary regulations, plus a thesis or practicum is required. The minimum must include at least six (6) credit hours at the 7000-level or above, with the balance of the coursework at the 3000-level or above. A maximum of twenty-four (24) credit hours of coursework is allowed unless the department/unit's supplementary regulations indicate otherwise. The student must complete the thesis/practicum at The University of Manitoba.

The Master of Science program in ECE is a thesis-based program.

**M.Sc. Course Requirements:** A program of study consisting of a minimum of 12-credit hours of coursework at or above the 7000-level, with a minimum of 6-credit hours from ECE, and the remainder from ECE or other Departments. The coursework-based program of study must be approved by the advisor and the Department of Electrical and Computer Engineering.

**M.Sc. Research and Thesis:** A Master of Science Thesis is required.

1. Student must submit a Research Proposal for approval by the Student's Academic Advisor.
2. After approval for the research proposal the student may begin his/her research under the guidance of his/her Academic Advisor.
3. The student must produce a thesis (in consultation with the Academic Advisor) to be distributed to the student's examining committee upon approval of the Academic Advisor.
  - a. students should be very careful to note work done by others and list others' work properly to avoid plagiarism.
  - b. students should obtain copyright permission when quoting the work of others when necessary to avoid copyright infringements, which can include significant fines.
    - I. If you have questions regarding plagiarism or copyright matters, please contact your Academic Advisor first.
    - II. Penalties regarding plagiarism and copyright infringements are severe.

**Thesis and Defence:** ECE requires that a student:

- submit a thesis;
- defend his/her thesis.

### 6.3.2 Course-based, Major Research Paper, Project or Comprehensive Examination Route

A minimum of twenty-four (24) credit hours of coursework is required. If the student is in the comprehensive examination route, a comprehensive examination(s) is required. The minimum must include at least eighteen (18) credit hours at the 7000-level or above with the balance of the coursework at the 3000-level or above. A maximum of forty-eight (48) credit hours of coursework is allowed unless a department/unit's supplementary regulations indicate otherwise. Refer to unit supplementary regulations

The Master of Engineering program is meant to satisfy the particular needs of students and practicing engineers wishing to extend their studies on a broad basis of coursework and an engineering project. The coursework requirements and project are decided by the academic advisor

**The M.Eng. program requires a minimum of 24 credit hours** of advisor-approved coursework as follows:

concerning specific regulations on coursework, major research paper, project and/or comprehensive examination requirements.

- Minimum 9 credit hours at or above the 7000 level from the ECE department
- Maximum 9 credit hours of elective courses from the ECE department at or above the 4000 level and a maximum of 12 credit hours from other departments at or above the 3000 level
- Final Project GRAD 7050 (6): the student is required to complete and defend an advisor-approved engineering project. The effort involved in this project should be at least the equivalent of six (6) credit hours of coursework.

**M.Eng. Course Requirements:** Transferring Credits:

- A maximum of 1/2 the credit hours may be transferred into the M.Eng. program with approval from the Faculty of Graduate Studies;
- Credit hours may only be transferred from another degree program from a recognized university where a degree has not been awarded;
- Credit hours must relate directly to the student's degree program;
- Credit hours may not have been used for any other degree;

Approval of courses for transfer is required and is done by the Faculty of Graduate Studies.

**6.3.3 Language Requirements**

Some department/units specify an additional language requirement for the Master's degree. Students should check department/unit supplementary regulations regarding this requirement.

Not required.

**6.3.4 Advance Credit**

Advance credit for courses completed prior to admission to a Master's program will be considered on a case-by-case basis. The student's department/unit must make a request to the Faculty of Graduate Studies by completing the "[Recommendation for Advance Credit-Transfer of Courses](#)" form.

- Application for advance credit must be made within the first year of the program (see [Lapse or Expiration of Credit of Courses](#)).
- No more than 50% of the required coursework for the program can be achieved using advance credit.
- A course may not be used for credit toward more than one degree
- The student must register at The University of Manitoba for at least two (2) terms within a single academic year and must also complete all other program requirements at The University of Manitoba (or in the case of a Joint Master's Program student, at The University of Winnipeg).
- 

Advanced credit must be approved by the student's supervisor, the ECE Graduate Committee, and the Faculty of Graduate Studies.

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<ul style="list-style-type: none"> <li>• A Pre-Master's student may only transfer a maximum of 3 credit hours at the 7000 level taken as occasional into a prospective Master's program of study.</li> </ul> <p>Regardless of the number of courses approved for which advance credit is granted, all students are required to pay all applicable program fees (i.e., program fees will not be pro-rated according to advance credit granted).</p>	
<p><b>6.3.5 Transfer Credit</b></p> <p>Courses within a program of study may be taken elsewhere and transferred for credit at The University of Manitoba. All such courses:</p> <ul style="list-style-type: none"> <li>• must be approved for transfer to the program of study by the department/unit and the Faculty of Graduate Studies before the student may register for them;</li> <li>• are considered on an individual basis;</li> <li>• cannot be used for credit towards another degree;</li> <li>• may not exceed 50% of the minimum credit hours of coursework required of the student's graduate program at The University of Manitoba.</li> </ul> <p>Permission is granted in the form of a <u>Letter of Permission</u> which may be obtained by making an application to the Registrar's Office; an official transcript and course equivalency must be provided.</p>	<p>Transfer credit must be approved by the student's Academic Advisor, the ECE Graduate Committee, and the Faculty of Graduate Studies.</p>
<p><b>6.3.6 Time in Program</b></p> <p>The minimum time for students in the Master's program is equivalent to two (2) terms (8 months). Completion of most programs requires more than this and students should check department/unit supplementary regulations regarding specific requirements.</p> <p>The maximum time allowed for the completion of the Master's degree is four (4) years for students declared as full-time and six (6) years for students declared as part-time (see <u>Student Status/Categories of Students</u> for information on calculating maximum time for students). Individual departments/units and/or programs may have specified minimum and maximum time limits.</p> <p>Requests for extensions of time to complete the degree will be considered on an individual basis and must be submitted to the Dean of the Faculty of Graduate Studies using the "<u>Time Extension Request</u>" form <b>at least three (3), but no more than four (4), months</b> prior to expiration of the respective maximum time limit.</p> <p>A student who has not completed the degree requirements within the time limit or within the time limit of the extension will be Required to Withdraw from the Faculty of Graduate Studies and the notation on the student record will be "Required to Withdraw".</p>	
<p><b>6.4 Student's Advisor and Co-Advisor</b></p> <p><b>6.4.1 Student's Advisor</b></p> <p>Each student should have an advisor upon entry into the program, and must have one assigned no later than one (1) term following initial registration. Advisors are required for thesis/practicum routes, but not usually course-based routes or some comprehensive exam routes. In department/units where the choice of thesis/practicum topic and thesis/practicum advisor are postponed after a student's entry into the program, the Department/Unit Head, within one (1) term, shall appoint a faculty member to advise the student in the interim period before the regular advisor is assigned or chosen. Students must have an advisor through to the end of their program in programs requiring an advisor.</p> <p>The advisor is responsible for supervising the student's graduate program. The advisor is the student's first point of contact at the University of Manitoba and must be familiar with the general policies and regulations of the Faculty of Graduate Studies as</p>	<ol style="list-style-type: none"> <li>1. An Academic Advisor must be identified at the time of admission.</li> <li>2. Normally, the Advisor is a primary faculty member of the Department of ECE approved by the Department Head/Graduate Chairperson.</li> </ol> <p>Should the Academic Advisor not be a primary member of the UM ECE Department, they must be approved as an Academic Advisor of the Department by the Graduate Chairperson or Department Head, be a member of the Faculty of Graduate Studies, and a Co-Advisor who is a faculty member of the UM ECE Department is required.</p>

well as the specific supplementary regulations of their academic department/unit. In this capacity, the advisor assists the student in planning the graduate program and ensures that the student is aware of all graduate program requirements, degree regulations, and general regulations of the academic department/unit, the Faculty of Graduate Studies, the university, and external funding agencies. The advisor provides counsel for all aspects of the graduate program, and stays informed of the student's scholarly activities and progress. The student's advisor also acts as a channel of communication to the student's advisory committee, the department/unit and the Faculty of Graduate Studies.

The advisor must:

- hold an appointment in the student's department/unit;
- be a member of the Faculty of Graduate Studies (see the [FGS website](#) for details);
- hold at least a Master's degree or equivalent (see note below);
- be active in their field;
- have expertise in a discipline related to the student's program.

Note

Equivalency will be approved by the Dean of the Faculty of Graduate Studies and determined on a case-by-case basis. The potential advisor's demonstrated research record and current research activities will be considered as part of the equivalency assessment. Note that M.D., D.M.D., Pharm.D. and J.D. are undergraduate degrees and are not equivalent to a Master's or Ph.D.

It is the responsibility of the Department/Unit Head to determine whether faculty members meet these criteria, and also to report to the Dean of the Faculty of Graduate Studies on equivalency as necessary. Any exceptions or special circumstances must be recommended by the Department/Unit Head and approved by the Dean of the Faculty of Graduate Studies who considers each case on an individual basis.

**6.4.2 Student's Co-advisor**

Upon approval of the Department/Unit Head, an advisor and a maximum of one (1) co-advisor may advise a student. The co-advisor must:

- be a member of the Faculty of Graduate Studies (see the [FGS website](#) for details);
- hold a Master's or equivalent (see note below);
- be active in research;
- have expertise in a discipline related to the student's program;

Note

Equivalency will be approved by the Dean of the Faculty of Graduate Studies and determined on a case-by-case basis and assessed by the potential co-advisor's demonstrated research record and current research activities. Note that M.D., D.M.D., Pharm.D. and J.D. are undergraduate degrees and are not equivalent to a Master's or Ph.D.

The co-advisor may be identified either at the beginning of, or mid-way through, a student's program. In all instances, the Faculty of Graduate Studies must be informed of, and approve, the co-advisor arrangement. If a co-advisor is added midway through the student's program, a new Advisor Student Guidelines must be completed.

When an advisor and co-advisor are assigned, together they shall fulfill the role of the advisor (that is, neither shall fulfill any other advisory or examining committee



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<p>membership requirements for that student). One (1) advisor must be identified as the primary advisor; the advisor/co-advisor share a single vote. Both the advisor and co-advisor's signatures are required on all documents where the advisor's signature is required.</p>	
<p><b>6.4.3 Student's Advisor/Co-advisor</b></p> <p>A student who also holds an appointment at The University of Manitoba at the rank of Assistant Professor and above or Instructor 1 and above cannot have an advisor or co-advisor with an appointment in the same department/unit.</p> <p>The advisor, co-advisor (if applicable) and student must discuss and complete the Faculty of Graduate Studies Advisor-Student Guidelines prior to the commencement of any research and no later than the submission of the first Progress Report for the student. If a student does not have an advisor/co-advisor, then the interim advisor will be required to complete the Advisor-Student Guidelines. The advisor/co-advisor and the student are required to approve the agreement. If the parties cannot agree on one or more component(s) of the Advisor Student Guidelines, the matter should be referred to the Department/Unit Head, Graduate Chair, or the Dean of the Faculty of Graduate Studies. A new Advisor-Student Guidelines is to be completed if there is a change in advisor/co-advisor or when a co-advisor is added mid-way through the student's program.</p> <p>Should, during the student's program, the relationship between the student and advisor/co-advisor significantly deteriorate, the matter should be referred sequentially to the Department/Unit Graduate Chair, the Head of the department/unit, then to the Dean of the Faculty of Graduate Studies (or designate). It is the responsibility of the department/unit offering the program in which the student is studying to arrange an alternate advisor if this is appropriate and necessary. All students should consult department/unit supplementary regulations for specific details regarding advisor/co-advisor requirements.</p>	
<p><b>6.5 Advisory Committee</b></p> <p><b>6.5.1 Conflict of Interest</b></p> <p>There are several circumstances that might lead to a real, perceived or potential Conflict of Interest (COI) in advisory and examining committees. A real COI could be present due to the existence of a (past or present) personal relationship that is romantic, sexual, marital, personal or familial. There is a potential for a perceived COI in cases of recent (within the last 5 years) collaboration among committee members, which may result in the perception of a lack of fairness or impartiality. These examples are not intended to be comprehensive, and are provided solely for illustration. The University of Manitoba <a href="#">Conflict of Interest Policy</a> and <a href="#">Conflict of Interest Procedures</a> as well as the <a href="#">Conflict of Interest Between Evaluators and Students due to Close Personal Relationships</a> should also be consulted.</p> <p>In addition to following the processes outlined in the above policies, COIs that exist within advisory and examining committees and proposed mitigation should be declared in writing to the Faculty of Graduate Studies to provide transparency to all relevant parties (including the student, committee members, unit leadership, and the Faculty of Graduate Studies). All reported conflicts will be reviewed by the Dean of the Faculty of Graduate Studies (or designate). If the conflict is deemed sufficiently significant and cannot be mitigated, a new committee may need to be struck.</p>	
<p><b>6.5.2 Thesis/Practicum Route</b></p> <p>Advisory committees are selected by the advisor/co-advisor in consultation with the student and should consist of individuals whose expertise is consistent with that necessary to provide additional advice and guidance to the student during their research program. The advisor/co-advisor is the Chair of the advisory committee.</p>	<p>The Department of Electrical and Computer Engineering does not require an Advisory Committee at the Master's level.</p>

<p>The advisory committee must consist of a minimum of three (3) voting members (the advisor/co-advisor have a single vote), at least two (2) of whom must be members of the <a href="#">Faculty of Graduate Studies</a>.</p> <p>All examiners must be deemed qualified by the Department/Unit Head and be willing to serve. <b>It is expected that advisory committee members will have a Master's degree or equivalent. Equivalency will be determined by the Dean of the Faculty of Graduate Studies or designate.</b></p> <p>Individuals who are not a member of the Faculty of Graduate Studies, and who do not hold a Master's degree or equivalent, but who possess specific and extensive expertise and experience, such as professionals, artists, Knowledge Keepers or Elders, may serve on the advisory committee as a full voting member. No more than one such knowledge expert may serve on any individual advisory committee and must be nominated by the Department/Unit Head or Graduate Chair with a justification of their role and be approved by the Dean of the Faculty of Graduate Studies or designate.</p> <p>Advisory committees may <u>alternatively</u> include one (1) non-voting invited member who has expertise in a related discipline but is not a member of the Faculty of Graduate Studies. Committees may include a Knowledge Expert or invited member, not both.</p> <p>Under no circumstances are graduate students, Post-Doctoral fellows, and Research Assistants or Associates to serve on graduate student advisory committees, regardless if they hold a rank of Adjunct Professor.</p> <p>The composition of, and any changes to, the advisory committee, including the advisor/co-advisor, must be approved by the Faculty of Graduate Studies.</p> <p>Additional specifications, if any, regarding the advisory committee are found in the department/unit supplementary regulations and students should consult these regulations for specific requirements.</p>	
<p><b>6.5.3 Course-based, Major Research Paper, or Comprehensive Examination Route</b></p> <p>Normally, advisory committees are not required in these routes; however, the department/unit may specify advisory committee requirements in their supplementary regulations.</p>	
<p><b>6.6 Courses and Performance</b></p> <p><b>6.6.1 Course or Program Changes</b></p> <p>Students are not permitted to change their program of study, including withdrawal from individual courses, without the approval of their advisor/co-advisor (and/or advisory committee) and Department/Unit Head. Withdrawal from courses or changes of course category without such approval may result in the student being Required to Withdraw from the Faculty of Graduate Studies.</p>	
<p><b>6.6.2 Lapse or Expiration of Credit of Courses</b></p> <p>Courses completed more than seven (7) years prior to the date of awarding of a degree may not normally be used for credit toward that degree. A department/unit may request an exception to this limit on behalf of the student. Such requests, which will be evaluated on a case-by-case basis, must be submitted via the <a href="#">Course Currency form</a> and accompanied by supporting information including a detailed summary of the content of the course as taken initially and as offered most recently, and a detailed rationale explaining how the student has maintained knowledge of the course content. If FGS approves the course's currency, the approval will be valid for one (1) year. After one (1) year, an updated Course Currency form may be required.</p> <p>Courses completed more than ten (10) years prior to the date of awarding of a degree are deemed <b>expired and cannot</b> be used for credit toward that degree.</p>	<p>The student's Academic Advisor, Course Instructor, and Department must verify that the old course outline meets current course requirements and that the information in the old course is current and pertinent.</p>

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<p>In the event that coursework is no longer considered current or has expired, students must take additional coursework (as recommended by the Department/Unit Head, or designate, and as approved by the Dean of the Faculty of Graduate Studies) to meet the minimum credit hour requirements for their program. The department/unit may recommend that students re-take previously passed course(s) which have lapsed or expired.</p>	
<p><b>6.6.3 Academic Performance</b></p> <p>Student progress shall be reported <b>at least</b> annually (but no more than once every four (4) months) to the Faculty of Graduate Studies on the “<u>Progress Report</u>” form. Performance that remains “Satisfactory” throughout the year does not need to be reported to the Faculty of Graduate Studies more than annually, but should remain on file in the department/unit.</p> <p>Students who fail to maintain satisfactory performance may be Required to Withdraw on the recommendation of the Graduate Chair and/or department/unit Head to the Dean of the Faculty of Graduate Studies on the “Progress Report” form. Students who receive two (2) consecutive “in need of improvement” or one (1) “unsatisfactory” rating will normally be Required to Withdraw from the Faculty of Graduate Studies and the notation on the student record will be “Required to Withdraw”.</p>	
<p><b>6.6.4 Performance in Coursework</b></p> <p>A minimum degree grade point average (DGPA) of 3.0 with no grade below C+ must be maintained to continue in the Faculty of Graduate Studies. Departments/units may specify, in their supplementary regulations, standards that are higher than those of the Faculty of Graduate Studies. Students who fail to maintain the specified grades or DGPA will be Required to Withdraw unless the department/unit recommends remedial action. Any such action must be approved by the Dean of the Faculty of Graduate Studies.</p> <p>Students are normally expected to complete remedial action by the end of the subsequent term.</p>	
<p><b>6.6.5 Performance not related to Coursework</b></p> <p>In some departments/units, students are required to demonstrate satisfactory academic performance in areas not related to performance in courses, such as attendance at or participation in course lectures, seminars and in laboratories and progress in research, thesis or practicum. The specific nature of satisfactory academic performance is outlined in individual department/unit supplementary regulations and students should consult these supplementary regulations for specific requirements. Unsatisfactory performance must be reported to the Faculty of Graduate Studies on the “<u>Progress Report</u>” form. Students who fail to maintain satisfactory performance may be Required to Withdraw on the recommendation of the Department/Unit Head to the Dean of the Faculty of Graduate Studies.</p>	<p><i>Additional examples could include attendance in seminars, standards of ethical behavior, professional dress codes, etc.</i></p>
<p><b>6.7 Academic Requirements for Graduation</b></p> <p>All students must:</p> <ul style="list-style-type: none"> <li>• maintain a minimum degree grade point average (DGPA) of 3.0 with no grade below C+;</li> <li>• complete <u>GRAD 7500</u></li> <li>• complete <u>GRAD 7300</u></li> <li>• meet the minimum and not exceed the maximum course requirements; and</li> <li>• meet the minimum and not exceed the maximum time requirements (in terms of time in program and lapse or expiration of credit of courses).</li> </ul>	

<p>Individual department/units may have additional specific requirements for graduation and students should consult department/unit supplementary regulations for these specific requirements.</p>	
<p><b>6.7.1 Thesis/Practicum Route</b></p> <p><b>6.7.1.1 Thesis vs. Practicum</b></p> <p>Students must demonstrate their mastery of the field and that they are fully conversant with the relevant literature through their thesis/practicum. The thesis/practicum will normally be written in English but may be written in French. Departmental/unit supplementary regulations may allow the thesis/practicum to be written in a language other than English or French.</p> <p>The thesis must be written according to a standard style acknowledged within the student's particular field of study and recommended by the department/unit, be lucid and well-written, and be reasonably free from errors of style and grammar (including typographical errors). Additional recommendations for a thesis are outlined in Appendix 1: Thesis/Practicum Types.</p> <p>The thesis is developed under the mentorship of the advisor/co-advisor. Individual departments/units may have specific guidelines regarding the thesis proposal and its acceptance by the student's advisory committee and Department/Unit Head; students should consult department/unit supplementary regulations for specific requirements. Research must be approved by the appropriate Human Research Ethics Board or Animal Care Committee, if applicable, before the work has begun on the thesis research.</p> <p>A practicum differs from the thesis in its emphasis on the application of theory, it is however similar in scope, span, and rigour. The practicum takes the form of an exercise in the practical application of knowledge and skill. It usually involves the careful definition of a problem, the application of appropriate knowledge and skills to the problem, and a report of the results in a manner suitable for evaluation by an examining committee. Individual departments/units have specific requirements for graduation and students should consult department/unit supplementary regulations for specific requirements. Research must be approved by the appropriate Human Research Ethics Board or Animal Care Committee, if applicable, before the work has begun on the practicum.</p>	<p><u>Thesis/Practicum Proposal:</u></p> <p><i>Provide details of proposal format, page limits, other guidelines, evaluation procedures, who approves the proposal; at what point in the program is the thesis proposal to be completed; is the oral presentation completed in open or closed session; is unanimous approval required; can a thesis proposal that is not approved the first time be resubmitted, etc.</i></p> <p><b>Thesis Guidelines:</b> (See Appendix I below)</p> <p><b>Writing Style:</b> The University of Manitoba recognizes APA Style (American Psychological Association) for thesis and reports.</p>
<p><b>6.7.1.2 Examining Committee</b></p> <p>The advisor/co-advisor will recommend an examining committee to the Department/Unit Head for approval, which shall then be reported to the Faculty of Graduate Studies on the "<u>Master's Thesis/Practicum Title and Appointment of Examiners</u>" form. This form must be approved by the Dean of the Faculty of Graduate Studies at least two (2) weeks prior to the distribution of the thesis.</p> <p>Under normal circumstances, the examining committee will be the same as the advisory committee unless otherwise stipulated in the department/unit's supplementary regulations. The examining committee must consist of a minimum of three (3) members (including the advisor/co-advisor), at least two (2) of whom must be members of the Faculty of Graduate Studies. All examiners must be deemed qualified by the Department/Unit Head and be willing to serve. It is expected that, under normal circumstances, examination committee members will have a Master's degree or equivalent. Knowledge Experts and invited members are exempt from this requirement. The composition of, and any changes to, the examining committee, including the advisor/co-advisor, must be approved by the Faculty of Graduate Studies. Individual departments/units establish specific requirements for examination and students should consult department/unit supplementary regulations for specific requirements.</p> <p>Under no circumstances are graduate students, Post-Doctoral fellows, and Research Assistants or Associates to serve on graduate student examining committees, regardless if they hold a rank of Adjunct Professor.</p>	<p><b>EXAMINING COMMITTEE MEMBERSHIP</b></p> <p>Normally, the M.Sc. Examining Committee consists of the following members:</p> <ol style="list-style-type: none"> <li>1. Advisor: Whose primary membership is normally in the Dept. of ECE</li> <li>2. Member 01: The primary membership of this member is in the Dept. of ECE</li> <li>3. Member 02: A member of FGS</li> </ol> <p><b>Distribution:</b></p> <p>It is the student's responsibility to distribute copies of their thesis to the Examining Committee.</p> <ol style="list-style-type: none"> <li>1. Distribution of Copies:       <ol style="list-style-type: none"> <li>A. Electronic copies:           <ol style="list-style-type: none"> <li>1. This format must be accepted by the Academic Advisor and committee members;</li> <li>2. If the electronic format is accepted, the student may send out PDF copies of his/her thesis</li> </ol> </li> </ol> </li> </ol>

The Head of the department/unit arranges for the distribution of the thesis/practicum to the examiners. It is the duty of all examiners to read the thesis/practicum and report on its merits according to the following categories:

- Acceptable, without modification or with minor revision(s); or
- Acceptable, subject to modification and/or revision(s); or
- Not acceptable.

If two or more examiners do not approve the thesis, then the student is deemed to have failed the distribution.

Note that advisors and co-advisors share a single vote.

electronically to Examining Committee members.

B. All copies must be identical.

2. Student delivers copies to all committee members.
3. The Academic Advisor should send an email to all members to inform them of the due date for their responses.
4. The Examining Committee will take approximately three weeks to evaluate the thesis.
5. After the thesis has been delivered, neither the student nor the Academic Advisor is permitted to contact committee members; otherwise the student's presentation may be canceled.
6. The Examining Committee members will contact the student's Academic Advisor with comments and recommendations regarding the thesis.
7. After committee members have contacted the student's Advisor, they will arrange the student's defence.

**6.7.1.3 Oral Examination**

For departments/units requiring students to pass an oral examination on the subject of the thesis/practicum and matters relating thereto, the format of the oral examination is described in the supplementary regulations of the department/unit. Students should consult these supplementary regulations for specific requirements. A student has the right to an examination of the thesis/practicum if they believe it is ready for examination. It is the department/unit's responsibility to advise the student of any risk involved should they decide to proceed against the department/unit's recommendation.

The examination should be completed within one (1) month of distribution of the thesis/practicum to the examining committee.

Normally, all members of the examining committee should be present in real time at the examination. Under exceptional circumstances, and with the prior approval of the Dean of the Faculty of Graduate Studies, one (1) member may be absent from the proceedings. No recordings will be permitted. Any in-person components of the oral examination must be held at either The University of Manitoba Fort Garry or Bannatyne campus, Université de Saint-Boniface, or the St. Boniface Hospital Albrechtsen Research Centre normally during regular business hours. The oral examination shall be open to all members of The University of Manitoba community except in exceptional cases. The oral examination may be closed, for example, when the results of the thesis/practicum research must be kept confidential for a period of time. In such cases, the examining committee and Department/Unit Head must request a closed examination to the Dean of the Faculty of Graduate Studies, who shall then decide that the final examination be closed to all but the examining committee. The Dean of the Faculty of Graduate Studies (or delegate) reserves the right to attend a closed examination.

The announcement is made by the ECE Department, at least 10 working days prior to the oral exam unless otherwise approved by the Graduate Chair and/or Department Head.

**Oral Presentation:**

1. Announcement of oral: must be announced at least 10 working days prior to the presentation;
2. Presiding over the oral: Normally the student's Academic Advisor will be the chair of the oral exam; however, the student or the Advisor may make a request to the Department Head to appoint an arm's length ECE faculty member as the chair;
3. Participation in the oral exam via SKYPE or other VoIP (This requires approval from FGS):
  - This is in case one of the examining committee members (not the student's Advisor) is available via VoIP;
  - You must receive permission from your Academic Advisor and the ECE Associate Head (Graduate Program);
  - You must pay any expenses incurred.
4. Student's Presentation Length: 30-35 minutes;

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>The oral examination will normally be held in English, but may be held in French. Departmental/unit supplementary regulations may allow the oral examination to be held in a language other than English or French.</p> <p>Following completion of the examination of the thesis/practicum, examiners will determine the results of the oral examination and the written thesis/practicum.</p> <p>The examiners will also determine the nature of and procedures for approval of any revisions that will be required prior to submission of the thesis/practicum to the Faculty of Graduate Studies (via MSpace). The advisor/co-advisor is normally responsible for ensuring that revisions are completed according to the instructions from the examining committee.</p> <p>The final assessment of the examiners shall be reported to the Faculty of Graduate Studies as either "approved" or "not approved" on the <a href="#">Master's Thesis/Practicum Final Report</a> form submitted by the advisor. Each examiner must sign the form. If two (2) or more examiners do not approve the thesis/practicum, the student is deemed to have failed the examination.</p>	<p>5. <u>Examining Committee Questions</u>: 60-75 minutes. This may include 10 minutes of questions from the audience;</p> <p>6. <u>Decision</u>: 20-30 minutes.</p> <ul style="list-style-type: none"> <li>• The Academic Advisor will then ask the student and all audience members to leave the room to allow the Examining Committee to evaluate the student's work.</li> <li>• The Examining Committee may ask the student to step back into room to clarify information given at the presentation or to ask additional questions.</li> <li>• The Examining Committee may then ask everyone to step back into the room to hear their decision.</li> </ul> <p><u>Total Oral Presentation Length</u>: The entire oral presentation should not be more than 2 hours.</p>
<p><b>6.7.1.4 Failure</b></p> <p>In the case of a failure of the thesis/practicum at the Master's level, the student may be allowed to defend the thesis a second time. In this case, a detailed written report will be prepared by the Chair of the examination committee and submitted to the Faculty of Graduate Studies, who will make the report available to the student, the student's advisor/co-advisor and the Department/Unit Head. Without this detailed report, the student may not defend the thesis the second time. The Department/Unit Head shall convene a meeting of the members of the examining committee and the student's advisor/co-advisor to decide how to bring the thesis to an acceptable scholarly standard and/or prepare for the second defence.</p> <p>A student will be Required to Withdraw when the thesis/practicum has been rejected twice at the stage where:</p> <ul style="list-style-type: none"> <li>• The examining committee reports on the merits of the written thesis/practicum;</li> <li>• The oral examination; or</li> <li>• A combination of both stages.</li> </ul>	
<p><b>6.7.2 Course-based, Major Research Paper, or Comprehensive Examination Route</b></p> <p>Students must demonstrate their mastery of their field. The specific procedures for evaluation of this mastery are stated in individual department/unit supplementary regulations.</p> <p>In those departments/units where comprehensive examinations are required, students should consult the department/unit's supplementary regulations for specific requirements.</p> <p>The results of the comprehensive examinations shall be submitted to the Faculty of Graduate Studies on the "<a href="#">Report on Comprehensive Examination</a>" form as either "pass" or "fail." No student may sit comprehensive examinations more than twice. Any student who receives a "fail" on the comprehensive examination twice will be Required to Withdraw from the Faculty of Graduate Studies.</p>	<p>The M.Eng. oral examination of the project will follow the same procedure as for the M.Sc. oral defence described above.</p>
<p><b>6.8 Style and Format</b></p>	

<p>The thesis/practicum must be written according to a standard style acknowledged by a particular field of study (please refer to Appendix 1: <a href="#">Thesis/Practicum Types</a>).</p>	
<p><b>6.9 Details for Submission of the Final Copy</b></p> <p>Following the approval of the thesis/practicum by the examining committee via the <a href="#">“Master’s Thesis/Practicum Final Report” form</a> and the completion of any revisions required by that committee, the thesis/practicum must be submitted to the Faculty of Graduate Studies as follows:</p> <ul style="list-style-type: none"> <li>• One digital version submitted as an e-thesis/practicum at the <a href="#">MSpace website</a>;</li> <li>• “Copyright License Declaration/Infringement” form (completed in MSpace)</li> </ul>	
<p><b>6.10 Publication and Circulation of Thesis/Practicum</b></p> <p>Every graduate student registering in a thesis/practicum Master’s program at The University of Manitoba shall be advised that, as a condition of being awarded the degree, they will be required to grant a licence of partial copyright to the University and to the Library and Archives Canada for any thesis or practicum submitted as part of their degree program.</p> <p><b>Note:</b> This licence makes the thesis/practicum available for further research only. Publication for commercial purposes remains the sole right of the author.</p> <p>The “Copyright Licence Declaration/Infringement” form must be completed in MSpace. This and other related regulations may give rise to important questions of law, and students may need additional legal advice on the copyright laws of Canada and/or other countries. Students who wish to obtain legal advice concerning their subsequent rights are advised to do so prior to signing the agreements. Signing of the licence agreements is normally done after the contents of the thesis/practicum have been delineated and the importance of copyright and/or patents fully understood and appreciated.</p> <p>Publication in the above manner does not preclude further publication of the thesis or practicum report or any part of it in a journal or in a book. In such cases, an acknowledgement that the work was originally part of a thesis/practicum at The University of Manitoba should be included.</p> <p><b>Notes:</b></p> <p><b>Patents</b> –Refer to <a href="#">“Policy of Withholding Theses Pending Patent Applications”</a> in this Guide.</p> <p><b>Restriction of Thesis/Practicum for Publication</b> – In exceptional cases, not covered by the regulation concerning patents, where adequate cause can be shown to delay publication, the student and advisor/co-advisor may request in writing that the Dean of the Faculty of Graduate Studies restrict access for a period up to one (1) year after submission of the digital version of a thesis or practicum to The University of Manitoba. The Dean shall determine for what period, if any, access will be restricted.</p> <p><b>Library and Archives Canada</b> – Library and Archives Canada obtains a copy of the thesis via the University’s MSpace repository.</p>	
<p><b>6.11 Final Requirements and Deadlines for Graduation</b></p> <p>The student will be recommended for the Master’s degree providing that all degree requirements have been satisfied. In addition, the Faculty of Graduate Studies must receive:</p> <ul style="list-style-type: none"> <li>• For the Thesis/Practicum: <ul style="list-style-type: none"> <li>• the final report on the thesis/practicum; and</li> <li>• the final (corrected and advisor-/advisory committee-approved) version of the thesis/practicum uploaded to MSpace; and</li> <li>• the Copyright Licence Declaration agreed to in MSpace</li> </ul> </li> </ul>	

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<ul style="list-style-type: none"> <li>• For the Comprehensive Examination/M.Eng project/Design Thesis:               <ul style="list-style-type: none"> <li>• the final report form</li> </ul> </li> </ul> <p>The final requirements of the degree must be submitted to the Faculty of Graduate Studies by the appropriate deadline. For those programs that do not have a GRAD course associated with their culminating exercise, the department/unit must forward a list of names of their potential graduands to the Faculty of Graduate Studies by the deadline published on the <a href="#">Faculty of Graduate Studies</a> website.</p>	
<p><b>SECTION 7: Doctor of Philosophy General Regulations</b></p> <p>The degree of Doctor of Philosophy (Ph.D.) is granted only upon evidence of general proficiency and distinctive achievement in a special field. In particular, the candidate must demonstrate an ability for independent investigation, original research or creative scholarship. This is expected to be presented in a thesis with a degree of literary skill and by an oral examination wherein the candidate exhibits mastery of their field. The Ph.D. is a research degree and is not conferred by The University of Manitoba solely as a result of coursework study.</p> <p>Although general regulations apply to all students, individual departments/units may have additional regulations that supplement these general regulations. All such supplementary regulations must be approved (as specified by the By-Laws of the Faculty of Graduate Studies), be published and available to students (please refer to the <a href="#">website</a>), and be kept on record in the Faculty of Graduate Studies. All students should consult department/unit supplementary regulations for specific details regarding admission, program requirements, progression, and completion.</p>	
<p><b>7.1 Admission</b></p> <p><b>7.1.1 General criteria</b></p> <p>Normally, the completion of a Master's degree or equivalent from a recognized university and a cumulative GPA of 3.0 (or equivalent) in the last two (2) years of full-time university study (60 credit hours) is the minimum requirement for admission to the Ph.D. program.</p> <p><b>Note:</b> This is the minimum requirement of the Faculty of Graduate Studies and departments/units may have higher standards and additional criteria. Students who meet the minimum requirements for admission to the Faculty of Graduate Studies are not guaranteed admission. Some departments/units require completion of a thesis-based Master's program prior to admission to a Ph.D. program.</p>	<p>Normally the student must hold a M.Sc. degree in Electrical or Computer Engineering or a closely related discipline from a recognized university. Exceptions will require permission of the Electrical and Computer Engineering Graduate Committee, and the Faculty of Graduate Studies.</p> <p><b><u>Admissions Criteria</u></b></p> <ul style="list-style-type: none"> <li>• All prospective students must receive tentative acceptance by a professor in the Department of Electrical and Computer Engineering at the University of Manitoba prior to formal submission of an application to the Faculty of Graduate Studies.</li> <li>• Tentative acceptance by a professor or submission of an admissions application is not a guarantee of admission into the ECE Department or the University.</li> <li>• Undergraduate students who are enrolled at the University of Manitoba, who hold degree(s) from other universities, and who are applying to the ECE graduate program must adhere to all Faculty of Graduate Studies (FGS) and ECE Departmental requirements for admissions including submitting all documents in the manner required by FGS.</li> </ul> <p>ECE will consider GPA below 3.5; however, a 3.5 GPA or higher is recommended.</p>
<p><b>7.1.2 Direct Admission from the Bachelor's Honours or Equivalent</b></p>	



With special recommendation of the department/unit, applicants without a Master's degree who have an honours Bachelor's degree or equivalent may be considered for entry to the Ph.D. program. These students must be outstanding in their academic background (GPA well above 3.0 in the last two (2) full years (60 credit hours) of undergraduate study).

**Note:** This is the minimum requirement of the Faculty of Graduate Studies and departments/units may have higher standards and additional criteria. Once admitted, these students must complete at least 24 credit hours of coursework, unless the individual department/unit's approved supplementary regulations specify otherwise, and will be assessed Ph.D. fees for three (3) years. A minimum of 18 credit hours at the 7000-level or higher is required. Any further coursework beyond the minimum 18 credit hours at the 7000-level must be at the 3000-level or above. A maximum of 48 credit hours of coursework is allowed toward the Ph.D. program.

### 7.1.3 Transfer from the Master's to the Ph.D. Program

Students who have not completed a Master's program may transfer to the Ph.D. program within the same department/unit upon the recommendation by the Department/Unit Head to the Faculty of Graduate Studies. The recommendation should be made within four (4) terms from the start of the Master's program. Fees paid, coursework completed, and time spent in the Master's program will normally be credited towards the Ph.D. program. Students must complete at least 24 credit hours of coursework unless the individual department/unit's approved supplementary regulations specify otherwise. A minimum of 18 credit hours at the 7000-level or higher is required. Any further coursework beyond the minimum 18 credit hours at the 7000-level must be at the 3000-level or above. A maximum of 48 credit hours of coursework is allowed toward the Ph.D. program.

The request to transfer from a Master's to the Ph.D. program must be submitted to the Faculty of Graduate Studies via the Faculty's admission application at least one (1) month prior to the term for which the student intends to start the Ph.D. program. The applicant must indicate a request for transfer in their application.

The student will be admitted to a 3-year Ph.D. program and will pay a total of three years of program fees, including program fees paid in the Master's at the time of transfer. Students are cautioned that such transfers may impact on the duration of The University of Manitoba Graduate Fellowship.

Students who have previously completed a recognized Master's degree and are initially admitted and registered in a Master's program may transfer to the Ph.D. program within the same department/unit on the recommendation of the student's advisor/co-advisor and Department/Unit Head. Where a student holds a Master's degree that would be sufficient for admission to the Ph.D. program, students must complete at least 12 credit hours of coursework, unless the individual department/unit's approved supplementary regulations specify otherwise. The student will be admitted to a 2-year Ph.D. program and will pay a total of two years of program fees, including program fees paid in the Master's at the time of transfer.

### Transfer from the M.Sc. Program

#### **A. With an M.Sc. degree and declared on Admissions form:**

Where a student with a Master's degree or equivalent is initially admitted and registered in a Master's program, that student may be transferred to the Ph.D. program:

- Allowed only within the same department;
- Recommendation required from the Student's Academic Advisor and Department Head.

#### Time Period:

Made at the time of admission to the Master's Program (i.e.: "Possible Transfer to Ph.D. Program within 12-Months" put on student's application) and application to the Ph.D. must occur within 12-months of the initial registration in the Master's program.

#### Status:

Student considered second (2nd) year in Ph.D. program when transferring with an M.Sc. or equivalency.

#### Start date of Ph.D. program:

The start date of your Ph.D. program is the start date of your M.Sc. program; this does not change.

#### Credit hours required to graduate:

12 credit hours (undergraduate credits will not count towards graduation).

#### **B. With an M.Sc. degree, but not declared on Admissions form:**

Transfer comment NOT indicated on the M.Sc. admission letter and does not make the request in the first 12- months:

In these cases, students have to pay the additional year's fee (3 years in total) of program fees even though they are

	<p>academically in a 2-year program (12 credit hours).</p> <p>The student may petition to request a tuition reduction. Approval of the Registrar is required.</p> <p><b>C. Without an M.Sc. -- transferring to the ECE Ph.D. program from the ECE M.Sc. program:</b></p> <p>Students who have not completed a Master's program may transfer to the Ph.D. program:</p> <ul style="list-style-type: none"> <li>• Within the same department;</li> <li>• With a recommendation from the student's advisor and Department Head.</li> </ul> <p><u>Deadline:</u></p> <ul style="list-style-type: none"> <li>• The recommendation must be made within 24 months of the student's commencement of the Master's program;</li> <li>• Must be submitted to the Faculty of Graduate Studies well in advance <b>prior</b> to the term for which the student intends to commence the Ph.D. program.</li> </ul> <p><u>Transfer of M.Sc.</u> The coursework completed in the Master's program would normally become part of the Ph.D. program.</p> <p><u>Start date of Ph.D program:</u> The start date of your Ph.D. program is the start date of your M.Sc. program; this does not change</p> <p><u>Maximum time in program (shortened):</u> The number of years spent in the Master's program would be counted as years in the Ph.D. program; this means that the maximum time to finish your Ph.D. would be less the number of years spent in the M.Sc. program prior to the transfer to the Ph.D.</p> <p><u>Credit hours required:</u> 24-Credit Hours for B.Sc. degree holders.</p> <p><b>All other categories of students:</b></p> <ol style="list-style-type: none"> <li>1. minimum of 18 credit hours of Advisory Committee approved course work is required;</li> <li>2. 12 credit hours must be at or above the 7000 level;</li> <li>3. 6 credit hours may be at or above the 3000 level from other departments or 4000 level elective courses from this department;</li> </ol> <p>9 of the 18 credit hours must be from the ECE Department (unless approved by Advisor and Associate Head of ECE Graduate Studies).</p>
<p><b>7.1.4 Provisional Admission to the Ph.D.</b></p>	

<p>Students nearing the completion of the Master's degree may be accepted provisionally to the Ph.D. program for a 12-month period commencing with the first registration in the Ph.D. program. Further registration in the Ph.D. program is contingent upon completion of all requirements of the Master's degree within the 12 months. Students must maintain continuous registration in their Master's program until its completion. Students will require assistance from the department/unit and the Faculty of Graduate Studies to complete dual registration on the "<a href="#">Concurrent Curriculum Permission</a>" form in the Master's and Ph.D. program simultaneously.</p>	
<p><b>7.2 Student's Advisor, Co-advisor and Advisory Committee</b></p> <p><b>7.2.1 Student's Advisor</b></p> <p>Every Ph.D. student must have an advisor throughout their program, who is recommended to the Faculty of Graduate Studies by the Department/Unit Head. The advisor is responsible for supervising the student's graduate program. The advisor is the student's first point of contact at the University of Manitoba and must be familiar with the general policies and regulations of the Faculty of Graduate Studies as well as the specific supplementary regulations of their academic department/unit. In this capacity, the advisor assists the student in planning the graduate program and ensures that the student is aware of all graduate program requirements, degree regulations, and general regulations of the academic department/unit, the Faculty of Graduate Studies, the university, and external funding agencies. The advisor provides counsel for all aspects of the graduate program, and stays informed of the student's scholarly activities and progress. The student's advisor also acts as a channel of communication to the student's advisory committee, the department/unit and the Faculty of Graduate Studies.</p> <p>The advisor must:</p> <ul style="list-style-type: none"> <li>• hold an appointment in the student's department/unit.</li> <li>• be a member of the Faculty of Graduate Studies (see the <a href="#">FGS website</a> for details);</li> <li>• hold a Ph.D. or equivalent (see note below);</li> <li>• be active in research; and</li> <li>• have expertise in a discipline related to the student's program.</li> </ul> <p>Equivalency will be approved by the Dean of the Faculty of Graduate Studies and determined on a case-by-case basis and assessed by the potential advisor's demonstrated research record and current research activities. Note that M.D., D.M.D., Pharm.D. and J.D. are undergraduate degrees and are not equivalent to a Ph.D.</p> <p>Usually the student and the advisor choose to work together by mutual agreement. In departments/units where the choice of thesis topic advisor is postponed for some time after entry into the program, the Head of the department/unit or the selection committee shall appoint a faculty member to advise the student as to the rules and regulations and on program and course requirements. This interim period must not exceed eighteen (18) months after entry into the program before a permanent advisor is chosen.</p>	<p>The Department of ECE requires that an Academic Advisor be identified at the time of admission.</p> <p>Normally, the Advisor holds primary membership within the Dept. of ECE. However, should the Advisor NOT hold primary membership with the Dept., a Co-Advisor who holds primary membership within the Dept. of ECE is required.</p>
<p><b>7.2.2 Student's Co-advisor</b></p> <p>In special circumstances, upon approval of the Head of the department/unit, an advisor and a maximum of one (1) co-advisor may advise a student. The co-advisor must:</p> <ul style="list-style-type: none"> <li>• be a member of the Faculty of Graduate Studies (see the <a href="#">FGS website</a> for details);</li> <li>• hold a Ph.D. or equivalent (see note below);</li> </ul>	<p>A Co-Advisor is required in a case when the Advisor does not hold primary membership within the Dept. of ECE.</p>

<ul style="list-style-type: none"> <li>• be active in research; and</li> <li>• have expertise in a discipline related to the student's program.</li> </ul> <p>Equivalency will be approved by the Dean of the Faculty of Graduate Studies and determined on a case-by-case basis and assessed by the potential co-advisor's demonstrated research record and current research activities. Note that M.D., D.M.D. and J.D. are undergraduate degrees and are not equivalent to a Ph.D.</p> <p>The co-advisor may be identified either at the beginning of, or midway through, a student's program. In all instances, the Faculty of Graduate Studies must be informed of, and approve, the co-advisor arrangement. If a co-advisor is added midway through the student's program, a new Advisor-Student Guidelines must be completed. When an advisor and co-advisor are assigned, together they fulfill the role of the advisor (that is, neither fulfills any other advisory or examining committee membership requirements for that student). One (1) advisor must be identified as the primary advisor. The advisor and co-advisor share a single vote. Both the advisor and co-advisor's signatures are required on all documents where the advisor's signature is required.</p>	
<p><b>7.2.3 Student's Advisor/Co-advisor</b></p> <p>A student who also holds an appointment at the University of Manitoba at the rank of Assistant Professor and above or Instructor 1 and above cannot have an advisor or co-advisor with an appointment in the same department/unit.</p> <p>The advisor, co-advisor (if applicable) and student must discuss and complete the Faculty of Graduate Studies Advisor-Student Guidelines prior to the commencement of any research and no later than the submission of the first Progress Report for the student. If a student does not have an advisor/co-advisor, the interim advisor will be required to complete the Advisor Student Guidelines. If the parties cannot agree on any component(s) of the Advisor Student Guidelines, the matter should be referred to the Department/Unit Graduate Chair, the Department/Unit Head, or the Dean of the Faculty of Graduate Studies. A new Advisor-Student Guidelines is to be completed if there is a change in advisor/co-advisor or when a co-advisor is added midway through the student's program.</p> <p>Should, during the student's program, the relationship between the student and advisor/co-advisor significantly deteriorate, the matter should be referred sequentially to the Department/Unit Graduate Chair, the Department/Unit Head, then to the Dean of the Faculty of Graduate Studies. It is the responsibility of the department/unit offering the program in which the student is studying to arrange an alternate advisor/co-advisor if this is appropriate and necessary.</p> <p>All students should consult department/unit supplementary regulations for specific details regarding advisor/co-advisor requirements.</p>	
<p><b>7.2.4 Advisory Committee</b></p> <p>The Department/Unit Head is responsible for recommending the advisory committee for each Ph.D. student. Advisory committees are selected by the advisor/co-advisor in consultation with the student and should consist of individuals whose expertise is consistent with that necessary to provide additional advice and guidance to the student during their program. The advisor/co-advisor is the Chair of the advisory committee</p> <p>The advisory committee must consist of a minimum of three (3) voting members (including the advisor/co-advisor as a single member sharing a single vote), all of whom must be <u>members of the Faculty of Graduate Studies</u>. It is expected that advisory committee members will have a Ph.D. degree or equivalent. Equivalency will be determined by the Dean of the Faculty of Graduate Studies or designate.</p> <p>In addition, individuals who are not a member of the Faculty of Graduate Studies, and who do not hold a Ph.D. degree or equivalent, but who possess specific and extensive expertise and experience, such as professionals, artists, Knowledge Keepers or</p>	<p>Normally, the Advisory Committee consists of the following members:</p> <ol style="list-style-type: none"> <li>1. Advisor: Whose primary membership is normally in the Dept. of ECE</li> <li>2. Member 01: The primary membership of this member is in the Dept. of ECE.</li> </ol> <p>Member 02: A member of FGS</p>

<p>Elders, may serve on the advisory committee as a full voting member. No more than one such knowledge expert may serve on any individual advisory committee and must be nominated by the Department/Unit Head or Graduate Chair with a justification of their role and be approved by the Dean of the Faculty of Graduate Studies or designate. Advisory committees may <u>alternatively</u> include one (1) non-voting invited member who has expertise in a related discipline but is not a member of the Faculty of Graduate Studies. Committees may include a Knowledge Expert or invited member, not both.</p> <p>Under no circumstances should graduate students, Post-Doctoral Fellows, and Research Assistants or Associates serve on graduate student advisory committees, regardless if they hold a rank of Adjunct Professor.</p> <p>The composition of, and any changes to, the advisory committee, including the advisor/co-advisor, must be approved by the Faculty of Graduate Studies on the "<u>Program of Study and Appointment of Advisory Committee</u>" form.</p> <p>Advisory committee meetings must be held at least annually and are not intended to take the place of meetings between the student and advisor/co-advisor which should occur with much greater frequency than the advisory committee meetings.</p>	
<p><b>7.2.5 Conflict of Interest</b></p> <p>There are several circumstances that might lead to a real, perceived or potential Conflict of Interest (COI) in advisory and examining committees. A real COI could be present due to the existence of a (past or present) personal relationship that is romantic, sexual, marital, personal or familial. There is a potential for a perceived COI in cases of recent (within the last 5 years) collaboration among committee members, which may result in the perception of a lack of fairness or impartiality. These examples are not intended to be comprehensive, and are provided solely for illustration. The University of Manitoba <u>Conflict of Interest Policy and Conflict of Interest Procedures</u> as well as the <u>Conflict of Interest Between Evaluators and Students due to Close Personal Relationships</u> should also be consulted.</p> <p>In addition to following the processes outlined in the above policies, COIs that exist within advisory and examining committees and proposed mitigation should be declared in writing to the Faculty of Graduate Studies to provide transparency to all relevant parties (including the student, committee members, unit leadership, and the Faculty of Graduate Studies). All reported conflicts will be reviewed by the Dean of the Faculty of Graduate Studies (or designate). If the conflict is deemed sufficiently significant and cannot be mitigated, a new committee may need to be struck.</p>	
<p><b>7.3 Program of Study</b></p> <p>As soon as possible, but no later than 24 months after a student has commenced their program, the student's program of study should be registered with the Faculty of Graduate Studies on the "<u>Program of Study and Appointment of Advisory Committee</u>" form and should include:</p> <ul style="list-style-type: none"> <li>• information about the minimum or expected time for completion of the degree;</li> <li>• coursework to be taken along with course classification ("S", "X", "A" or "O");</li> <li>• any additional language requirement;</li> <li>• the research area in which the thesis will be written.</li> </ul> <p>The approval of the student's advisor/co-advisor and the Head of the department/unit are sufficient for registration. The program of study, including withdrawal from individual courses and any subsequent changes, must be approved by the student's advisor/co-advisor, the advisory committee, and the Head of the department/unit. Withdrawal from courses or changes of course category without such approval may</p>	<p>The "Program of Study and Appointment of Advisory Committee" form must be submitted within one year of the student's start in the Ph.D. program.</p>

result in the student being Required to Withdraw from the Faculty of Graduate Studies.

#### 7.4 Program Requirements

All students must complete one of the following programs of study for the Ph.D. degree, unless otherwise specified in the approved department/unit supplementary regulations:

- Where admission to the Ph.D. is directly from a Master's degree, a minimum of 12 credit hours at the 7000- level or higher plus a thesis is required. Any further coursework beyond the minimum 12 credit hours at the 7000-level must be at the 3000-level or above. A maximum of 24 credit hours of coursework is allowed toward the Ph.D. program.<sup>1</sup>
- Where admission to the Ph.D. is directly from an Honours Bachelor degree or equivalent, a minimum of 24 credit hours plus a thesis is required. The coursework must include a minimum of 18 credit hours at the 7000-level or higher with the balance of the coursework at the 3000-level or higher. A maximum of 48 credit hours of coursework is allowed toward the Ph.D. program unless department/unit's supplementary regulations indicate otherwise.

#### Program Requirements

All students must complete one of the following programs of study for the Ph.D. degree:

1. **M.Sc. degree holders in Electrical or Computer Engineering who have been admitted directly into the Ph.D. program:**
  - Minimum of 12 credit hours of Advisory Committee-approved course work is required;
  - 7000 level or higher;
  - At least 6 of the 12 credit hours must be from ECE.
2. **B.Sc. degree holders in Electrical or Computer Engineering who are recommended for transfer into the Ph.D. program from the ECE M.Sc. program at this university:**
  - Minimum of 24 credit hours of Advisory Committee approved course work is required:
    - 9 credit hours **must** be at or above the 7000 level;
    - 6 credit hours may be:
      - Taken from another Department at or above the 3000 level; **or**
      - 4000 level elective courses from the ECE department.
    - At least 12 of the 24 credit hours **must** be from the ECE Department.
    - Credit may be given for approved course work completed at the M.Sc. level. If MSc was not awarded, then courses may be transferred up to 50% of Ph.D. coursework load.
3. **Honours Bachelor Degree or Equivalent (Not usually available in ECE Department):**
  - a minimum of 24 credit hours plus a thesis is required:
    - 18 credit hours at the 7000 level or higher;
    - the balance (6 credit hours) of the coursework at the 3000 level or above;
    - At least 12 of the 24 credit hours must be from the ECE Department.

**NOTE:** For those students who do not hold a Master's degree, a maximum of 48 credit hours of course work is allowed toward the Ph.D. program.

#### 7.4.1 Language Requirements

Not required.

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>Some departments/units specify a language requirement for the Ph.D. degree. Students are advised to consult department/unit supplementary regulations regarding this requirement.</p>	
<p><b>7.4.2 Advance Credit</b></p> <p>Advance credit for courses completed prior to admission to a Ph.D. program will be considered on a case-by-case basis. The student's department/unit makes the request to the Faculty of Graduate Studies by completing the "<a href="#">Advance Credit-Transfer of Courses</a>" form.</p> <ul style="list-style-type: none"> <li>• Application for advance credit must be made within the first year of the program (please refer to <a href="#">Lapse or Expiration of Credit of Courses</a>)</li> <li>• No more than 50% of the required coursework for the program can be achieved using advance credit.</li> <li>• A course may not be used for credit toward more than one degree, diploma, micro-diploma or certificate.</li> <li>• The student must register at the University of Manitoba for at least two consecutive terms and must also complete the thesis and candidacy examination at The University of Manitoba. Regardless of the extent of advance credit received, all students are required to pay applicable program fees.</li> </ul>	
<p><b>7.4.3 Transfer Credit</b></p> <p>Courses within a program of study may be taken elsewhere and transferred for credit at the University of Manitoba. All such courses:</p> <ul style="list-style-type: none"> <li>• must be approved for transfer to the program of study by the department/unit and the Faculty of Graduate Studies before the student may register for them;</li> <li>• are considered on an individual basis;</li> <li>• cannot be used for credit towards another degree, diploma, micro-diploma or certificate;</li> <li>• may not exceed 50% of the minimum credit hours of coursework required of the student's graduate program at The University of Manitoba.</li> </ul> <p>Permission is granted in the form of a <a href="#">Letter of Permission</a> which may be obtained by making an application to the Registrar's Office; an official transcript, and course equivalency must be provided.</p>	
<p><b>7.4.4 Lapse or Expiration of Credit of Courses</b></p> <p>Courses completed more than seven (7) years prior to the date of awarding of a degree may not normally be used for credit toward that degree. A department/unit may request an exception to this limit on behalf of the student. Such requests, which will be evaluated on a case-by-case basis, must be submitted via the "<a href="#">Course Currency</a>" form and accompanied by supporting information including a detailed summary of the content of the course as taken initially and as offered most recently, and a detailed rationale explaining how the student has maintained knowledge of the course content. If FGS approves the course's currency, the approval will be valid for one (1) year. After one (1) year, an updated "Course Currency" form may be required.</p> <p>Courses completed more than ten (10) years prior to the date of awarding of a degree are deemed <b>expired and cannot</b> be used for credit toward that degree.</p> <p>In the event that coursework is no longer considered current or has expired, students must take additional course-work (as recommended by the Department/Unit Head, or designate, and as approved by the Dean of the Faculty of Graduate Studies) to meet the minimum credit hour requirements for their program. The department/unit may</p>	<p><b>Lapse of Credit of Courses</b></p> <p>Courses completed more than seven (7) years prior to the date of awarding of a degree may not normally be used for credit toward that degree unless the material in the course can be confirmed to be current or still relevant.</p> <p>If the original instructor is not available, the course material may be reviewed by the Graduate Chair/Department Head.</p>

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>recommend that students re-take previously passed course(s) which have lapsed or expired.</p>	
<p><b>7.5 Time in Program</b></p> <p>The minimum time requirement for the program of study for a Ph.D. degree will normally be two (2) years of study beyond the level of the Master's degree, or three (3) years beyond the level of a Bachelor's degree.</p> <p>The maximum time allowed for the completion of the Ph.D. degree is six (6) years following initial registration in the Ph.D. program. For those students who transfer from the Master's to the Ph.D., years spent in the Master's program are counted as years in the Ph.D. program.</p> <p>Ph.D. students who are declared as part-time will receive an additional four (4) months in time to complete their program for every two (2) years (24 months) they are declared as part time (see <u>Student Status/Categories of Students</u>) to a maximum of seven (7) years. Requests for extensions of time to complete the degree will be considered on an individual basis and must be submitted using the "<u>Time Extension Request</u>" form to the Dean of the Faculty of Graduate Studies <b>at least three (3), but no more than four (4)</b>, months prior to expiration of the respective maximum time limit.</p> <p>A student who has not completed the degree requirements within the time limit or within the time limit of any extension that has been granted (please refer to "<u>Extension of Time to Complete Program of Study</u>" and "<u>Leaves of Absence</u>") will be Required to Withdraw from the Faculty of Graduate Studies and the notation on the student record will be "Required to Withdraw".</p>	
<p><b>7.6 Academic Performance</b></p> <p>Student progress shall be reported <b>at least</b> annually (but no more than once every four (4) months) to the Faculty of Graduate Studies on the "<u>Progress Report</u>" form. Performance that remains "Satisfactory" throughout the year does not need to be reported to the Faculty of Graduate Studies more than annually, but should remain on file in the department/unit.</p> <p>Students who fail to maintain satisfactory performance may be Required to Withdraw on the recommendation of the Graduate Chair and/or Department/Unit Head to the Dean of the Faculty of Graduate Studies on the "Progress Report" form. Students who receive two (2) consecutive "in need of improvement" or one (1) "unsatisfactory" rating will normally be Required to Withdraw from the Faculty of Graduate Studies and the notation on the student record will be "Required to Withdraw".</p>	<p><b><u>Progress Report</u></b></p> <p>A decision regarding continuation is conveyed to the Faculty of Graduate Studies using the "Progress Report" form.</p> <p>If performance is deemed to be unsatisfactory, action will be required which may include some or all of the following:</p> <p>NOTE: These recommendations must be stated on the "Progress Report" form, signed by the advisor, advisory committee members, and the student:</p> <ol style="list-style-type: none"> <li>a) A timeline of required actions or tasks may be put forward by the advisor, Head of the Department and/or the ECE Graduate Studies Committee. If the student fails to meet any of the tasks in the allotted time, the student will be required by the Faculty of Graduate Studies to withdraw from the program;</li> <li>b) The student may be required to meet with the Department Head and/or the Chair of the ECE Graduate Studies Committee. If it is confirmed that the student performance is unsatisfactory, then the student will be required to withdraw from the program;</li> <li>c) Students who receive a rating of "In Need of Improvement" twice will be required to withdraw from the program;</li> <li>d) <u>Performance not related to course work:</u> Students may also be required to withdraw from</li> </ol>



FGS Academic Guide Regulation 2022/23	Supplementary Regulation
	<p>their Ph.D. program for reasons of unsatisfactory performance other than those related to failing grades. These include, but are not restricted to such things as:</p> <ol style="list-style-type: none"> <li>1. unsatisfactory attendance;</li> <li>2. lack of progress in research and/or thesis.</li> </ol> <p>The student's advisory committee will make a recommendation for required withdrawal to the Department Head. The Department Head will then recommend to the Dean of the Faculty of Graduate Studies that the student be required to withdraw for reasons of unsatisfactory academic performance.</p>
<p><b>7.6.1 Performance in Coursework</b></p> <p>A minimum degree grade point average (DGPA) of 3.0 with no grade below C+ must be maintained to continue in the Faculty of Graduate Studies. Departments/Units may specify, in their supplementary regulations, standards that are higher than those of the Faculty of Graduate Studies. Students who fail to maintain the specified grades or DGPA will be Required to Withdraw unless a department/unit recommends remedial action. Any such action must be approved by the Dean of the Faculty of Graduate Studies.</p>	
<p><b>7.6.2 Performance Not Related to Coursework</b></p> <p>Students may be Required to Withdraw from their Ph.D. program for reasons of unsatisfactory performance other than those related to failing grades. These include, but are not restricted to, unsatisfactory attendance and lack of progress in research and/or thesis preparation. Unsatisfactory performance must be reported to the Faculty of Graduate Studies on the "<a href="#">Progress Report</a>" form. Students who fail to maintain satisfactory performance may be Required to Withdraw on the recommendation of the Department/Unit Head to the Dean of the Faculty of Graduate Studies.</p> <p>Students are normally expected to complete remedial action by the end of the subsequent term.</p>	<p><b>Research:</b></p> <p>Research is evaluated through a meeting of the student's Advisory Committee with the student. A minimum of one progress meeting must be held annually. However, more than one meeting may be held at the request of the advisor, an advisory committee member, or the student.</p>
<p><b>7.7 Academic Requirement for Graduation</b></p> <p>All students must:</p> <ul style="list-style-type: none"> <li>• maintain a minimum degree grade point average (DGPA) of 3.0 with no grade below C+;</li> <li>• complete <a href="#">GRAD 7500</a>;</li> <li>• complete <a href="#">GRAD 7300</a>;</li> <li>• <a href="#">complete the Candidacy Examination (GRAD 8010)</a>;</li> <li>• meet the minimum and not exceed the maximum course requirements; and</li> <li>• meet the minimum and not exceed the maximum time requirements (in terms of time in program and lapse or expiration of credit of courses).</li> </ul> <p>Individual departments/units may have additional specific requirements for graduation and students should consult department/unit supplementary regulations for these specific requirements. A degree grade point average of 3.0 or greater is required in those courses that constitute the program of study for graduation from the Faculty of Graduate Studies.</p>	
<p><b>7.8 Candidacy Examination</b></p>	<p>The purpose of the Candidacy Examination is to ascertain whether the student has sufficient</p>

The candidacy examination is a requirement of the Faculty of Graduate Studies and, as such, cannot be waived under any circumstances. However, the format and content of the candidacy exam varies from department/unit to department/unit. The purpose of the candidacy exam in doctoral programs is to determine the student's competence in the discipline with respect to understanding and absorbing a broad spectrum of material, and then researching, identifying, analyzing, synthesizing, and communicating ideas about that material in depth.

At the time specified by the advisory committee, normally within the first year after the completion of the Ph.D. program coursework, but in no case later than one year prior to expected graduation, the student must successfully complete the formal candidacy examination.

The examination is conducted according to a procedure established by the department/unit which is approved and documented in departmental/unit supplementary regulations. The department/unit supplementary regulations state the format and composition of the examination committee for the candidacy examination. The candidacy examination may be held virtually. If it is held in-person, it must be held at either The University of Manitoba Fort Garry or Bannatyne campus, or the St. Boniface Hospital Albrechtsen Research Centre normally during regular business hours.

This examination, which must be independent from the thesis proposal, may be oral, written, or both and may cover subjects relevant to the general area of the student's research. The structure of the exam must be made known to the student well in advance of the exam. In the case where there is a required oral component, the student must participate in-person or virtually.

A "pass" decision of the examiners must be unanimous. Students must be provided with feedback on their performance and access to the reasons for the pass/fail.

The Dean of the Faculty of Graduate Studies must be informed of the results of the examination via the "[Report on Ph.D. Candidacy Examination](#)" form.

Any student who fails the candidacy examination twice will be Required to Withdraw from the Faculty of Graduate Studies and the notation on the student record will be "Required to Withdraw".

On successful completion of this examination, the student will be considered a candidate for the Ph.D. degree.

background knowledge in the chosen area of research to proceed in the program.

### Overview

The following describes the Candidacy Examination requirements for these students.

### Time Frame

This examination must be taken within the first 12-months of the student's initial registration in the Ph.D. program.

Failure to complete this requirement in the time allotted may be cause for the Department to request the student to **withdraw from the program**.

### Format

- **Exam Level:** The contents of the Candidacy Exam will be at the senior undergraduate and graduate levels.

- **Purpose:** The Candidacy Exam will primarily assess a student's competence in taking doctoral-level studies.

- **Candidacy Examining Committee Composition:**

The exam will have a written portion (see below for details) and may include an oral exam as well (see below for details). For the written portion of the exam in each examination area, a group of professors with expertise in the subject area will set the exam paper for all students writing the subject area in a sitting.

If an oral exam is required, the composition of the oral examining committee will be as follows:

A. **Student's Advisory Committee:**

- advisor;
- at least one ECE faculty member;
- an external to the department (if appointed);
- at least one member of the ECE Graduate Studies Committee (in the student's major area of research), or appointed by the Department Head.

B. **Exam Material:** The examination will be conducted in defined subject areas (by the ECE Department) and from identified textbooks.

C. **Exam Subject Area:** The Advisory Committee shall select one(1) subject areas

for examination in the student's core area of future research:

D. **Exam Results: PASS / FAIL / MARGINAL**

- **PASS:** The result of the written exam clearly shows acceptable competence. No further oral examination is required.
- **FAIL:** The result of the written exam clearly shows lack of competence. No further oral exam is required.
- **MARGINAL:** The result of the written exam does not clearly show acceptable competence; therefore further examination (oral) is required.

**These grades are assigned to each of the examined subject areas.**

E. **Exam Parts:** The exam consists of two (2) parts:

1. **Written:** A 3 to 3.5 hour written examination in the chosen exam subject area.

- Written exams are graded as PASS, FAIL, or MARGINAL (as noted above). Students earning a MARGINAL grade will have to appear for an Oral Exam (see below).

2. **Oral:** An oral exam is conducted for students who receive a MARGINAL grade in their written exam. The oral exam is conducted normally between two (2) to four (4) weeks after the written examination for purposes of clarification.

**A copy of the written exam paper will be made available to the student and his/her advisor prior to the oral exam to assist the student in identifying their mistakes. This pertains to the subject area(s) where the student has received a MARGINAL grade.**

The Oral Examining Committee may seek clarification of answers that were provided in the written portion of the examination and/or ask related additional questions to gauge the candidate's knowledge in the area of intended research.

**List of Subject Areas**

The following are subject areas approved for the Candidacy Exam. The Department reserves the right to update this list as needed. New subjected

areas will be posted and announced to the students of the Department at least one semester in advance of an exam:

- **Power Systems**
- **Electromagnetics**
- **Circuits and Electronics**
- **Materials**
- **Signal Processing**
- Telecommunications
- Optics / Photonics
- Computer and Digital Systems
- Algorithms and Data Structures
- Engineering Mathematics
- Controls
- Nano / Microelectronics

Students must consult the related department webpages for details of the exams in each area, and for the required textbook and chapters.

#### **Exam Registration**

The candidate must register for the written Candidacy Examination at the start of the semester of the exam (deadline to be set by the department).

#### **Exam Materials and Style**

The Department reserves the right to update the following as needed:

- **Exam Texts**: Announced on the Department web site at the beginning of the semester.
- **Exam Materials**: Page of formulas, calculators, etc., items allowed into and for use during an exam in each subject area, are announced on the department web site at the beginning of the semester and sent out to all Graduate Students in the program using the students' university email.
- **Exam Style**: Open/Closed Book is announced on the department web site at the beginning of the semester and sent out to all Graduate Students in the program using the students' university email.

#### **Exam Periods**

The Candidacy Exam is held during the regular exam periods (at the end of each term), three (3) times each year:

- Fall (*December Exam Period*)
- Winter (*May Exam Period*)
- Summer (*August Exam Period*)

#### **Failed Exam**

If the student fails the Candidacy (written and/or oral), they will have a **second opportunity** to take the exam **in the following semester**. The second round examination area must be the same as the one attempted in the first round.

	<p><b><u>Re-Registering:</u></b> Students must re-register and take the Candidacy Exam before the end of their initial 12-months in the Ph.D. program.</p> <p><b><u>Failing a Second Candidacy:</u></b> All students must pass the written examination and, if required, oral examination, otherwise the student may be required to withdraw from the program</p>
<p><b>7.9 Thesis Proposal</b></p> <p>Some departments/units have specific procedures in place for approval of thesis proposals and students are advised to refer to the specific department/unit supplementary regulations. The thesis proposal must be independent from the candidacy examination.</p> <p>The proposed thesis research must be approved by the advisory committee and, if necessary, by the Human Research Ethics Board or Animal Care Committee before the work has begun on the thesis research or project.</p>	<p>Students must also successfully defend their Thesis Proposal.</p> <p><b><u>Purpose of the Thesis Proposal</u></b></p> <p>The purpose of the Thesis Proposal Defence is to:</p> <ol style="list-style-type: none"> <li>ascertain whether the student has sufficient knowledge in the chosen area of research to proceed in the program;</li> <li>assess the quality of the work done by the student;</li> <li>examine the student's future research plan and direction through examination of the research proposal;</li> </ol> <p><b><u>Overall Review of the Thesis Proposal Defence Process</u></b></p> <p>The thesis proposal defence is an examination of the student's ability to proceed with the proposed research project.</p> <ol style="list-style-type: none"> <li>The research proposal (not exceeding 40 pages in length), distributed to the Advisory Committee at least 3 weeks before the Thesis Proposal Defense, involves: <ul style="list-style-type: none"> <li>preparation of a written document outlining the research proposal and providing a state-of-the-art review and justification for undertaking the research.</li> </ul> </li> <li>The proposal should include: <ul style="list-style-type: none"> <li>a review of the work done to-date;</li> <li>a schedule of planned research.</li> </ul> </li> <li>The written proposal is prepared under the general guidance of the Advisor and is to be reviewed by each member of the Advisory Committee.</li> <li>The final, revised, and accepted version of the proposal should be submitted to the Advisor for a brief overview/comment before the Advisor</li> </ol>

	<p>convenes a general meeting of the Advisory Committee.</p> <p>5. The Advisory Committee is required to formally meet with the student and discuss/examine the Proposal.</p> <p>6. Length of Presentation:</p> <ul style="list-style-type: none"> <li>▪ This examination, based entirely on the written document, consists of a 30 minute (approximately) oral presentation of the proposal by the student;</li> <li>▪ Followed by a question period: <ul style="list-style-type: none"> <li>each member of the Advisory Committee is allowed ~20 minutes of questions;</li> <li>followed by a second round of questions, if required.</li> </ul> </li> </ul> <p>Thesis Proposal Announcement:</p> <ul style="list-style-type: none"> <li>▪ The oral presentation and examination is normally open to all students and faculty of the university community and must be announced well in advance of the event (at least 10 working days prior to the Thesis Proposal Defense).</li> </ul> <p><b><u>Time Frame</u></b></p> <p>ECE students must successfully complete their Thesis Proposal by the end of 30 months in the Ph.D. program. Failure to complete this requirement in the time allotted may be cause for the Department to request the student to <b>withdraw from the program</b>.</p>
<p><b>7.10 Thesis</b></p> <p>An essential feature of Ph.D. study is the candidate's demonstration of competence to complete a research project and present the findings. The thesis must constitute a distinct contribution to knowledge in the major field of study, and the research must be of sufficient merit to be, in the judgement of the examiners, acceptable for publication. The thesis will normally be written in English but may be written in French. Departmental/unit supplementary regulations may allow the thesis/practicum to be written in a language other than English or French..</p> <p>The thesis must be written according to a standard style acknowledged within the candidate's particular field of study and recommended by the department/unit, be lucid and well-written, and be reasonably free from errors of style and grammar (including typographical errors). Additional recommendations for a thesis are outlined in Appendix 1: Thesis/Practicum Types.</p> <p>The final version of the thesis must be submitted by the candidate to the Faculty of Graduate Studies following the guidelines found on the Faculty's <a href="#">website</a>.</p>	
<p><b>7.11 Thesis Examination Procedures</b></p>	

<p>The final examination for the Ph.D. degree proceeds in two (2) stages:</p> <ol style="list-style-type: none"> <li>1. Examination of the candidate's thesis by the examining committee;</li> <li>2. Oral examination of the candidate by all examiners on the subject of the thesis and any matters relating thereto.</li> </ol>	
<p><b>7.11.1 Formation of the Examining Committee - University of Manitoba (Internal Examiners)</b></p> <p>The candidate's advisor/co-advisor is considered to be a single voting member of the examining committee. All voting members of the advisory committee are expected to serve on the examining committee; any exceptions must be approved in advance by the Dean of the Faculty of Graduate Studies. All examiners must be members of the <u>Faculty of Graduate Studies</u>. It is expected that examining committee members will have a Ph.D. degree or equivalent. Equivalency will be determined by the Dean of the Faculty of Graduate Studies.</p>	
<p><b>7.11.2 Formation of the Examining Committee - External Examiner</b></p> <p>The candidate's advisor/co-advisor, in consultation with the advisory committee, will recommend the names of at least three (3) distinguished scholars from outside The University of Manitoba with particular experience in the field of the thesis research and significant Ph.D. student supervisory/examination experience to serve as the external examiner. The recommendations must be made to the Dean (or designate) of the Faculty of Graduate Studies for approval online and must include:</p> <ul style="list-style-type: none"> <li>• A CV of each of the prospective external examiners;</li> <li>• A short statement explaining: <ul style="list-style-type: none"> <li>○ The rationale behind the recommendations;</li> <li>○ The prospective external examiners' qualifications (if not already explicit on the CV). This includes a current list of their scholarly publications and research activities and, importantly, their experience with Ph.D. student supervision/examination (e.g., Ph.D. students they have supervised to completion; Ph.D. students they are currently supervising; experience serving as external examiner for Ph.D. examining committees).</li> </ul> </li> </ul> <p>Advisors and/or departments/units must contact the prospective external examiners to obtain this information and determine if they are available to review the thesis prior to submitting the recommendations to the Faculty of Graduate Studies.</p> <p>If any of the recommended examiners do not meet the criteria specified below, a detailed explanation should be included with the rationale for the recommendation.</p> <p>The external examiner must:</p> <ul style="list-style-type: none"> <li>• hold a Ph.D. (or the equivalent if outside of North America);</li> <li>• hold the rank of Associate Professor, Full Professor, Senior Scholar or Emeritus Professor (or the equivalent if outside North America) at a university, or have comparable expertise and standing if not a faculty member at a university;</li> <li>• have an established reputation in the area of the thesis research and be able to judge whether the thesis would be acceptable at an institution comparable to The University of Manitoba; and</li> <li>• have a demonstrated record of supervising a significant number of Ph.D. students to completion, and significant recent experience with the supervision/examination of Ph.D. students.</li> </ul> <p>The external examiner must not:</p>	

- have held any faculty appointment within the candidate's home department/unit at the University of Manitoba within the last 10 years;
- have acted as an external examiner for a student of the same Ph.D. advisor and/or co-advisor within the previous two (2) years;
- have been associated with the candidate at any time or in any significant way in the past five (5) years, present or reasonably foreseeable future (as advisor/co-advisor, colleague, teacher, co-author of published material, family member etc.); or
- be associated with the candidate's advisor/co-advisor in any of the following ways:
  - former student within the last ten (10) years;
  - research advisor/co-advisor within the last ten (10) years;
  - research collaborator within the last five (5) years;
  - co-author of published material within the last five (5) years.

The Dean of the Faculty of Graduate Studies or designate will choose the external examiner from the list provided by the candidate's advisor/co-advisor or department/unit and will make the formal invitation to the external examiner. The Dean (or designate) of the Faculty of Graduate Studies shall ensure the anonymity of the external examiner until their report has been submitted.

#### 7.11.3 Changes in the Examining Committee

The Dean of the Faculty of Graduate Studies must approve changes in the membership of the examining committee. No changes shall be made in the examining committee after the thesis is submitted to the Faculty of Graduate Studies.

#### 7.11.4 Distribution of the Thesis for Examination

Ph.D. candidates must submit their thesis for distribution electronically through the Faculty of Graduate Studies approved thesis distribution process. Please refer to the [website](#) for pertinent instructions. It is the responsibility of the Faculty of Graduate Studies to distribute the electronic version of the thesis to all examiners once an external examiner has been secured. The Faculty of Graduate Studies shall ensure that the thesis is distributed to examiners as soon as possible after the submission of all required documentation. The Faculty of Graduate Studies [website](#) should be consulted regarding recommended dates by which theses must be submitted.

Once the thesis has been submitted to the Faculty of Graduate Studies, neither the candidate nor the advisor/co-advisor shall have any communication with the examining committee regarding the thesis. However, should the need arise, the examiners may contact the Dean of the Faculty of Graduate Studies to discuss any issues related to the thesis.

#### 7.11.5 Responsibilities of the Examiners

In general, the examiners are responsible for:

- ensuring that the thesis and the candidate meet recognized scholarly standards for a Ph.D.;
- appraising the underlying assumptions, methodology, findings, and scholarly significance of the findings of the thesis;
- ensuring that the thesis is organized, presents data and uses accepted conventions for addressing the scholarly literature in an acceptable manner;



- evaluating that the candidate has the ability to present their findings orally and demonstrate their scholarship by responding to questions and defending the thesis.

**Notes:**

1. Any potential breach of academic integrity must be reported to the Dean of the Faculty of Graduate Studies.
2. Any potential breach of The University of Manitoba's Responsible Conduct of Research Policy must be reported to the Office of the Vice President (Research and International).
3. Submission of previously published, peer-reviewed material in the thesis does not preclude its critical examination, either as a written document being reviewed by examiners or at the thesis defence.

**7.11.6 Process****Examination of the Written Thesis**

Support of the candidate's advisor/co-advisors, advisory committee, and department/unit is required before the thesis is eligible for examination. Such support must be provided to the Faculty of Graduate Studies through submission by the Department/Unit Head of a completed "Approval to Proceed to Examination" form. By completing the "Approval to Proceed to Examination" form:

- each member of the advisory committee verifies that they have read the complete version of the thesis and have provided the candidate with a detailed review and comments including any necessary revisions in content and formatting (see Appendix 1);
- the student verifies that they have received feedback from all members of the advisory committee and have taken the feedback into account in preparing the thesis and are ready and willing to have their thesis examined; and
- the department/unit verifies that the student's thesis has been reviewed by all members of the advisory committee and that the department/unit fully supports the thesis proceeding for examination.

The thesis will be eligible for examination if no more than one (1) member of the advisory committee is not in support, the department/unit is in support, and an external examiner has been secured by the Faculty of Graduate Studies.

The Dean of the Faculty of Graduate Studies will request the examiners to give, within four (4) weeks of the distribution of the thesis, a detailed written report of the thesis.

The examiners will be asked to place the thesis into one of the following categories:

1. The thesis represents a distinct contribution to the candidate's field of research and is acceptable as it stands. Minor revisions to content, structure, or writing style may be required. The thesis may proceed to oral examination.
2. The thesis has merit and makes a contribution to the candidate's field; however, there are research-related concerns that have the potential to be addressed in the oral defence. The structure and writing style are acceptable or require only minor revisions. The thesis may proceed to oral examination.
3. The thesis has some merit, but is not acceptable in its current state and requires major revisions to one or more of its core components, such as research content, structure or writing style. The thesis should not proceed to oral examination.
4. The thesis is unacceptable with respect to its core components, such as research content, structure, and writing style. The thesis should not proceed to oral examination.

The candidate's advisor (and, if appropriate, co-advisor) may also submit a report.

If either the external examiner **or** two (2) or more internal examiners indicate a failure (i.e. places the thesis in categories 3 or 4), then the candidate fails the examination. Otherwise, the candidate may proceed to the oral examination. The awarding of a passing grade by an internal or external examiner does not preclude them from assigning a failing grade at a subsequent stage in the examination process.

In the event of a first failure, the candidate will be allowed to have the thesis evaluated a second time, by the same examining committee. In this case, the Department/Unit Head shall convene a meeting of the internal examiners of the examining committee and the student's advisor/co-advisor to decide how to bring the thesis to an acceptable scholarly standard. In normal circumstances, this will involve additional scholarly work that the Department/Unit Head will describe in writing to the advisor/co-advisor, the candidate, and the Dean of the Faculty of Graduate Studies. Without this written description, the thesis will not be distributed a second time.

Support of the candidate's advisor/co-advisors, examining committee, and department/unit is required before the thesis is eligible for re-examination. Such support must be provided to the Faculty of Graduate Studies through submission by the Department/Unit Head of a new completed "Approval to Proceed to Examination" form, accompanied by a detailed summary of the changes made to improve the thesis. The thesis will be eligible for second distribution only once this is received by Faculty of Graduate Studies.

Two failures at any combination of written review and/or oral examination stage will result in the candidate being withdrawn from the Faculty of Graduate Studies and the notation on the student record will be "Required to Withdraw".

#### Reports

The Dean of the Faculty of Graduate Studies shall provide electronic copies of all reports to each of the advisor/co-advisor, internal examiners, and Department/Unit Head and/or Graduate Chair.

#### 7.12 Oral Examination

**Please consult the [Faculty of Graduate Studies website](#) for up-to-date and detailed guidelines for the conduct of Ph.D. Oral Examinations.**

##### 7.12.1 Scheduling

Departments/Units cannot proceed with scheduling the oral examination prior to receiving the approved internal and external examiners' reports from the Faculty of Graduate Studies. It is the responsibility of the Advisor and/or Department/Unit to contact the internal and external committee members to determine their availability and arrange a date for the examination. The oral examination may be held in-person, remotely, or using a hybrid model. Any in-person participants must be hosted at either The University of Manitoba Fort Garry or Bannatyne campus or the St. Boniface Hospital Albrechtsen Research Centre, normally during regular business hours. It is the responsibility of the department/unit to provide the appropriate space and technology for their chosen delivery method(s) (i.e., room booking, ensuring that the chosen facilities meet minimum standards expected for a Ph.D. defence, determining the meeting platform to be used). The Advisor or Department/Unit must inform the Faculty of Graduate Studies of the following information **no later than two weeks (10 business days)** prior to the date of the examination:

- The date and time of the examination;
- The method of delivery (i.e., in-person, remote, or hybrid);
- The location and/or platform to be used; and
- Whether the external examiner and invited member (if applicable) will attend.

In addition, the candidate must submit biographical information/CV and an abstract of the thesis to the Faculty of Graduate Studies at least two (2) weeks in advance of the date of the oral examination.

The department/unit or advisor(s) are strongly encouraged to contact prospective chairs to determine their availability to chair the examination. The method of delivery (i.e., in-person, virtual, or hybrid) must be disclosed to prospective chairs. Chairs should attend in the same manner as the candidate (e.g., for hybrid examinations, the chair should participate in-person only if the candidate also participates in-person). Prospective chairs must:

- Be members of the Faculty of Graduate Studies;
- Hold a rank of Assistant Professor or above; and
- Not hold an appointment, including nil-salaried appointments (e.g., Adjunct) in any unit represented by the advisor and co-advisor.

**7.12.2 Attendance**

The Dean of the Faculty of Graduate Studies or designate shall act as Chair of the examination committee. The Faculty of Graduate Studies will provide the Chair with an electronic package of documents and forms one week before the examination is scheduled to take place.

The attendance of the external examiner at the candidate's oral examination is strongly encouraged. If the external examiner cannot participate, they will be asked to provide questions in advance. These questions will be read to the candidate at the defence by the advisor.

It is expected that all internal members of the examining committee, including the Knowledge Expert (if applicable), be present in real time at the defence. Under exceptional circumstances, and with the prior approval of the Dean of the Faculty of Graduate Studies, one (1) member may be absent from the proceedings. The candidate and advisor/co-advisor must be present in real time for the examination.

Normally, the oral examination shall be open to all members of The University of Manitoba community and the general public. In exceptional cases the final oral examination may be closed; for example, when the results of the thesis research must be kept confidential for a period of time. In such cases, the examination committee and Department/Unit Head shall request prior approval in writing from the Dean of the Faculty of Graduate Studies. If approved, the final oral examination shall be closed to all but the examining committee and the Dean of the Faculty of Graduate Studies or designate.

Regardless of open or closed status, no recordings will be permitted.

**7.12.3 Format of the Examination**

The first part of the oral examination shall consist of an oral presentation by the candidate. This is followed by examination of the candidate by the examination committee. If time permits, the Chair, at their discretion, may allow questions from the Knowledge Keeper or invited member (if applicable) of the examining committee and then members of the audience.

**7.12.4 Procedures for the Conduct of the Examination**

The Chair should discuss the examination procedures with the examiners prior to the beginning of the formal examination.

The Chair will introduce the candidate and request them to give a concise (20 to 25 minute) oral presentation of the thesis to include a summary of the problem addressed, the results obtained, and the conclusions drawn from the study.

Following the presentation, the Chair will invite questions from each member of the examining committee, taking care to ensure that each examiner has approximately

equal time for questions. The total time for questions by the examining committee must not exceed two (2) hours.

The Chair may exercise their discretion in allowing questions from the audience following completion of the formal examination. Once assuming the role of Chair, they forego the right to comment on the merits of the thesis regardless of whether they are an expert in the field.

#### 7.12.5 Decision of the Committee

Following completion of the formal examination, the candidate, invited member (if applicable) of the examining committee and audience must leave the examination room or virtual meeting. The decision of the examining committee will be based on the content of the thesis, the candidate's ability to defend their work, and the candidate's ability to accurately respond to questions posed by the examining committee. The performance of the candidate at the oral examination may reveal problems of comprehension or explanation, and the examining committee may require revisions be made to the written thesis to address these problems prior to granting final approval. Each examiner is expected to comment on the candidate's performance and vote in favour of assigning either a pass or fail grade for the examination. Co-advisors share a single vote.

The judgement of the examiners shall be reported by the Chair to the Faculty of Graduate Studies in the qualitative terms "pass" or "fail" on the Final Examination of the Ph.D. Thesis Chair Report Form. Each examiner must also indicate their vote on the Final Examination of the Ph.D. Thesis Approval Form, which will be submitted to the Faculty by the Advisor once all required revisions have been made.

- Pass: the candidate has satisfactorily presented the thesis rationale, methodology, findings, and conclusions to the general satisfaction of the examining committee. Notwithstanding this, stylistic, grammatical, and content revisions to the thesis may be required. Normally, the advisor/co-advisor is charged with ensuring that any revisions are satisfactorily completed. Under some circumstances, the entire examining committee may wish to ensure any required revisions are completed satisfactorily. Regardless, those examiners in agreement must indicate, by their signatures, concurrence with the passing grade.
- Fail: the candidate has failed to adequately orally present the thesis rationale, methodology, findings, and/or conclusions, or to satisfactorily respond to questions posed related to the thesis. Failure may also arise because of defects in conception, methodology, or context. Those examiners in agreement must indicate, by their signature, concurrence with the failing grade.

If either the external examiner or two (2) or more internal examiners indicate a failure, then the candidate fails the examination.

In the case of a first failure of the oral defence, the candidate will be allowed to defend the thesis a second time. In this case, the Department/Unit Head shall convene a meeting of the internal members of the examining committee and the student's advisor/co-advisor to decide how to bring the thesis to an acceptable scholarly standard and/or prepare for the second oral defence. In normal circumstances this may involve additional scholarly work which the Department/Unit Head will describe, in writing, to the advisor/co-advisor, the candidate, and the Dean of the Faculty of Graduate Studies.

Approval from the candidate's advisor/co-advisor, advisory committee, and department/unit is required before the thesis is eligible for re-examination. Eligibility for re-examination must be provided to the Faculty of Graduate Studies through submission by the Department/Unit Head of a new completed "Approval to Proceed to Examination" form, accompanied by a detailed summary of the changes made to improve the thesis, if any. The thesis will be eligible for second distribution to internal

and external examiners only once this is received by Faculty of Graduate Studies. Only then will the candidate be eligible for a second oral defence.

**Note:** In some circumstances, the candidate may revise the written thesis. The revised thesis will be provided to the committee prior to the next oral defence. The revised written thesis shall not be re-examined; however, revisions can be recommended at the oral examination.

Candidates whose thesis is failed twice at either the written review or the oral examination stage will be withdrawn from the Faculty of Graduate Studies and the notation on the student record will be "Required to Withdraw".

### 7.13 Graduation

The candidate will be recommended for the Ph.D. degree providing that all degree requirements have been satisfied, and upon receipt by the Faculty of Graduate Studies:

- the favourable reports by the thesis examining committee;
- the completed Final Examination of the Ph.D. Thesis Chair Report and

Approval forms;

- the final (corrected) version of the thesis uploaded to MSpace; and
- the Copyright Licence Declaration agreed to in MSpace.

The final requirements of the degree must be submitted to the Faculty of Graduate Studies by the appropriate deadline. The deadline for each graduation period is published on the [Faculty of Graduate Studies](#) website.

**Patents** –Refer to "[Policy of Withholding Theses Pending Patent Applications](#)".

**Restriction of Theses for Publication** – In exceptional cases, not covered by the regulation concerning patents, where adequate cause can be shown to delay publication, the student and advisor/co-advisor may request in writing that the Dean of the Faculty of Graduate Studies restrict access for a period up to one (1) year after the submission of the digital version of a thesis to The University of Manitoba. The Dean shall determine for what period, if any, access will be restricted.

**Library and Archives Canada** – Library and Archives Canada obtains a copy of the thesis via the University's MSpace repository.

### 7.14 Student Withdrawal

A student will be Required to Withdraw when the Ph.D. thesis has been rejected twice at the stage where:

1. The internal examining committee reports on the merits of the written thesis;
2. The external examiner reports on the merits of the written thesis;
3. The oral examination; or
4. A combination of any of these stages.

### SECTION 8: Policy of Withholding Thesis Pending Patent Applications Content or Manuscript Submission

In 1970, The University of Manitoba Board of Governors and Senate approved a policy on accepting research grants from outside agencies. This policy defined the right of agencies to defer release of information and thus ensure freedom of publications for research findings of University personnel. Occasionally, the University may also wish to restrict the release of a thesis pending patent application. For additional details, see The University of Manitoba [Governing website](#).

This situation may arise in the two (2) circumstances defined below, both of which are governed by the same set of regulations:

1. Where a research project is known to contain patentable items as defined in the research contract, then it is the responsibility of the advisor/co-advisor to give written information of the restrictions on publication to the student prior to the start of the thesis research. If the student agrees to carry out the research, then the regulation given below will apply.
2. Where a patentable item is found during the course of research, then the advisor/co-advisor and the student may make application for patent rights through the University Patent Committee, and the following regulation will apply concerning the release of the thesis.

#### **Regulations Concerning Release of a Thesis during Application and Negotiation for Patents**

The Dean of the Faculty of Graduate Studies will receive the approved thesis. On written joint request of the advisor/co-advisor and the student, the Dean will retain the thesis for a period up to one (1) year.

#### **Regulations Concerning Release of Thesis Pending Manuscript Submission**

The Dean of the Faculty of Graduate Studies will receive the approved thesis. On written joint request of the advisor and the student, the Dean will retain the thesis for a period up to one (1) year.

In exceptional cases, not covered by the regulation concerning patents, where adequate causes can be shown to delay publication, the student and advisor/co-advisor may request in writing that the Dean of the Faculty of Graduate studies restrict access for a period up to one (1) year after submission of the digital version of a thesis or practicum to The University of Manitoba. The Dean shall determine for what period, if any, access will be restricted.

#### **SECTION 9: Extension of Time to Complete Program of Study Content**

All requests for extensions will normally be dealt with administratively and reported, in summary form, to the Executive Committee of Graduate Studies for information. The student must complete the "[Time Extension Request](#)" form and submit it to their major department/unit for recommendation to the Faculty of Graduate Studies **at least three (3), but no more than four (4), months** prior to expiration of the respective maximum time limit. Requests for an extension are reviewed by the Faculty of Graduate Studies on a case-by-case basis.

Requests for extension must be accompanied by a realistic detailed timeline that has been agreed to by the student and advisor/co-advisor and endorsed by the Department/Unit Head. The extension time requested must closely reflect the time required to complete the program.

The normal time granted for extensions is four (4) to eight (8) months. More than one (1) extension period may be granted, however the total for all approved extensions will not normally exceed one (1) year.

#### **Section 10: Leaves of Absence**

##### **For International Graduate Students:**

To determine how applying for a Leave of Absence may affect your immigration status with Immigration, Refugees and Citizenship Canada, please consult with an International Student Advisor at the [International Centre](#) prior to completing your "[Leave of Absence](#)" application with your department/unit.

##### **10.1 Regular Leave**

A regular leave is intended to allow students to meet responsibilities/plans related to family, travel or employment and circumstances not covered by the parental or exceptional leaves. At the student's request, the Department/Unit Head may recommend to the Dean of the Faculty of Graduate Studies that a student be granted a leave of absence for a period of time not to exceed one (1) year. While on a regular

leave of absence, a student must not be actively engaged in their program of study or thesis/practicum research work. A student on a regular leave of absence is required to maintain continuous registration. A student on a regular leave of absence will not be assessed program fees, if any are owing, during the period of the leave; however, the appropriate continuing fee will be assessed.<sup>1</sup> Any program fees deferred as a result of a regular leave will be assessed when the student returns from leave. A regular leave of absence status does not extend time limits to complete program of study as outlined in Faculty of Graduate Studies regulations.

**Note:** At the time of approval of an application for leave, the procedures for the return of the student to the department/unit at the completion of the leave must be stipulated.

**10.1.1 Program Fees:** The continuing fee in effect at the time of the granting of the leave will be levied. However, if the student returns from leave in January, the normal tuition fee will be levied less the continuing fee already paid (as determined by the Registrar's Office).

All applications for Leaves of Absence must be submitted on the "Leave of Absence" form.

### 10.2 Exceptional Leave

In exceptional circumstances for medical or compassionate reasons (e.g. the need to care for an ailing family member), at the request of the student, the Head of the department/unit may recommend to the Dean of the Faculty of Graduate Studies that a student be granted an exceptional leave of absence for a period of time not to exceed one (1) year. Supplemental documentation must support the requested dates of the leave. Exceptional leaves must correspond with the start and end of (an) academic term(s). While on an exceptional leave of absence, a student is not permitted to be engaged in their program of study or thesis/practicum work, and would not be required to maintain continuous registration or pay tuition fees. In addition, the leave period would not be included in the time period allowed for the completion of the degree. This leave does not cover circumstances related to travel, employment or financial concerns.

**Note:** At the time of approval of an application for leave, the procedures for the return of the student to the department/unit at the completion of the leave must be stipulated.

#### 10.2.1 Fees

**Program Fees:** Students are not expected to pay fees for the term in which they have been granted an exceptional leave. Upon return from the exceptional leave, students will be assessed fees as determined by the Registrar's Office.

All applications for Leaves of Absence must be submitted on the "Leave of Absence" form.

### 10.3 Parental Leave

A graduate student who is expecting a child or who has primary responsibility for the care of an infant or young child immediately following a birth or adoption of a child is eligible for parental leave. The request for a parental leave should be made through the department/unit, to the Faculty of Graduate Studies for a period of time normally not to exceed one (1) year. Supplemental documentation must be submitted to support the requested dates of the leave. Parental leaves must correspond with the start and end of (an) academic term(s). While on leave of absence for parental reasons, a student must not be actively engaged in their program of study or thesis/practicum work. The leave period is not included in the time period allowed for completion of the degree.

**Note:** At the time of approval of an application for leave, the procedures for the return of the student to the department/unit at the completion of the leave must be stipulated.

#### 10.3.1 Fees

**Program Fees:** Students are not expected to pay fees for the term(s) in which they have been granted a parental leave. Upon return from the parental leave students will be assessed fees as determined by the Registrar's Office.

All applications for Leaves of Absence must be submitted on the "[Leave of Absence](#)" form.

#### 10.4 Awards and Leave of Absence

Students granted an exceptional leave will retain the full value of a University of Manitoba Graduate Fellowship or other award whose terms and conditions are established by the Faculty of Graduate Studies. Such an award will be suspended at the onset of the leave and reinstated at the termination of the leave period (4 to 12 months) provided that the student returns to full time study at that time. Students granted an approved parental leave will have their UMFG extended for the time of the parental leave, no not to exceed one year. The UMFG Award Holder's Guide is available on the FGS [Forms webpage](#).

**Note:** Other awards will be paid according to the conditions established by the donor or granting agency.

#### 10.5 Graduate Student Vacation Entitlement

Students are entitled to 21 calendar days of vacation over a twelve (12) month period.

- For the purposes of calculating vacation entitlement, the academic year means the period from September 1 to August 31.
- Vacation entitlement will be prorated for the portion of the year in which a student is registered.
- Any vacation time taken during an official closure of the University is not included as part of the 21 calendar day vacation entitlement. In addition, attendance at academic conferences shall not be considered vacation time.
- Student vacation requests should have minimal impact on the student's research, coursework, and other obligations to the University. Any requests provided ahead of time and within these guidelines will not be unreasonably denied.
- Should a conflict arise between a student's vacation request and a supervisor's expectations, the Department/Unit Head (or designate) shall make a final determination.

### SECTION 11: Appeals – Procedures and Guidelines

#### 11.1 General

Students who disagree with a decision have access to appeal routes as laid out by various Faculty of Graduate Studies and University of Manitoba appeal procedures. Student appeals may be limited by the scope of the inquiry available at each level and category of appeal, as well as by the time restrictions for submission of appeals.

A further limitation is that the Faculty of Graduate Studies rules and regulations, established to uphold the academic rigour of the University of Manitoba, are generally not subject to appeal unless an appeal route is otherwise stipulated. In situations where no appeal route is available, a student may make a written request to the Dean of the Faculty of Graduate Studies.

Students are referred to the appeals section of the [University of Manitoba Governing Documents](#) for further details.

For students registered in Joint Master's Programs (University of Manitoba and University of Winnipeg), there is a different process for handling academic and disciplinary appeals cases than normally used for University of Manitoba students in



<p>regular programs (not Joint Programs). This process is outlined in the Joint Master's Program Governing Document.</p>	
<p><b>11.2 Definitions</b></p> <ul style="list-style-type: none"> <li>• “Appellant” – the graduate student appealing a decision affecting the student’s own admission to, academic standing in, awards from or disciplinary action by a department/unit or the Faculty of Graduate Studies;</li> <li>• “Appeal Panel” – a panel convened from the members of the Faculty of Graduate Studies Appeals Committee by the Executive Committee of the Faculty of Graduate Studies empowered to deal with appeals stemming from decisions of departments/units or the Faculty of Graduate Studies, or individuals designated to make such decisions;</li> <li>• “Unit” – the department/unit council, or appeal body, whose decision is being appealed. This is understood to include decisions taken by individuals or committees acting in the name of the department/unit and also to the supplementary regulations pertinent to a department/unit’s operation which have been approved by the Faculty of Graduate Studies;</li> <li>• “Respondent” – a representative of the Faculty of Graduate Studies designated by the Dean of the Faculty of Graduate Studies to represent the Faculty of Graduate Studies. In this document, “Respondent” may also refer to a “Co-respondent” invited by the Respondent to represent the department/unit unless otherwise noted.</li> </ul>	
<p><b>11.3 Types of Appeal</b></p> <p>Several areas of appeal are available to appellants:</p> <ul style="list-style-type: none"> <li>• admission;</li> <li>• academic;</li> <li>• discipline;</li> <li>• administration (e.g. fee appeals).</li> </ul> <p>In all cases, appeals should be addressed to the Dean of the Faculty of Graduate Studies. Appeals of decisions made by the Dean will be referred to an Appeal Panel of the FGS Appeals Committee. A decision of the Faculty of Graduate Studies Appeal Panel is appealable only to the Senate Committee on Appeals or the University Discipline Committee, as appropriate. In all cases, an appellant shall have the option of being registered in, and undertaking the responsibilities of, their program, until such time as they have exhausted the university appeal process or the appellant decides not to appeal further, whichever comes first.</p> <p>A flow chart of the University of Manitoba Appeals Processes is available at this <a href="#">link</a>.</p>	
<p><b>11.4 Admission Appeals</b></p> <p>Please refer to University of Manitoba Governing Documents: <a href="#">Students: Policy: Admission Appeals Procedures and Guidelines</a>.</p>	
<p><b>11.5 Academic Appeals</b></p> <p>Academic Appeals are appeals concerning academic decisions made by the department/unit and/or the Faculty of Graduate Studies.</p> <p><b>11.5.1 Appeal Considerations</b></p> <p>The Faculty of Graduate Studies will consider appeals:</p> <ul style="list-style-type: none"> <li>• stemming from a decision of a department/unit on academic matters (e.g. first failure of a candidacy examination) only after they have been dealt with by</li> </ul>	

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<p>the appropriate department/unit-level appeal process (if any), as is outlined in the department/unit supplementary regulations;</p> <ul style="list-style-type: none"> <li>stemming from a decision of the Faculty of Graduate Studies (e.g. Required to Withdraw) which may follow the recommended action of a department/unit.</li> <li>stemming from a negative decision from the Registrar's Office on a final grade or term work grade appeal.</li> </ul> <p>In all cases, appeals should be addressed to the Dean of the Faculty of Graduate Studies.</p> <p>A decision of the Appeal Panel is appealable only to the <a href="#">Senate Committee on Appeals</a>.</p>	
<p><b>11.5.2 Composition of an Appeal Panel</b></p> <p>Faculty members or students are disqualified from participating on an Appeal Panel if they:</p> <ul style="list-style-type: none"> <li>hold any academic appointment in the department/unit in which the appellant is registered;</li> <li>are/were a student in the department/unit in which the appellant is registered;</li> <li>were, as an individual, or as a member of a committee or board, responsible for making the decision being appealed.</li> </ul> <p><b>Note:</b> All members of an Appeal Panel shall participate in all of the deliberations essential for the determination of the matter in dispute. If, in the course of hearing an appeal, a member is not present at the commencement of the hearing or a member cannot continue, the Panel may elect to proceed in the absence of that member. If more than one (1) member is not present at the commencement or cannot continue, the Appeal Panel must adjourn the proceedings.</p>	
<p><b>11.5.3 Grounds for an Academic Appeal</b></p> <p>It shall be the responsibility of the appellant to indicate clearly and specifically the grounds warranting consideration of the appeal.</p> <p>The Appeal Panel shall only consider an appeal if there is evidence that:</p> <ul style="list-style-type: none"> <li>the department/unit or the Faculty of Graduate Studies failed to follow the rules of natural justice;</li> <li>the department/unit or the Faculty of Graduate Studies failed to follow procedures;</li> <li>a department/unit or Faculty of Graduate Studies regulation has been unfairly or improperly applied, or has become inapplicable through lapse of time;</li> <li>there are documented mitigating circumstances (e.g. medical, compassionate);</li> <li>there is apparent conflict between a Senate Regulation, a Faculty of Graduate Studies policy and/or a department/unit regulation.</li> </ul>	
<p><b>11.5.4 Appeal of a Faculty of Graduate Studies Decision:</b></p> <p>An appeal of action taken by any department/unit, committee, administrator, or faculty member within the Faculty of Graduate Studies must be submitted in writing by the appellant to the Dean of the Faculty of Graduate Studies within fifteen (15) working days of the date that the appellant was informed in writing of the action to be appealed. This is considered a first-level appeal.</p>	
<p><b>11.5.5 Faculty of Graduate Studies Academic Appeals Process</b></p>	

**11.5.5.1 Submission of Appeal Package**

The Appellant must submit an appeal package consisting of an appeal form, a letter clearly explaining their grounds for appeal, a copy of the letter of decision from the last action/appeal level, a copy of all the documentation submitted to the last appeal level, if not a first-level appeal, and any relevant supporting documentation to the Faculty of Graduate Studies within the above timeframe. Incomplete appeals may not be considered.

Upon receipt of a formal appeal, the Dean of the Faculty of Graduate Studies may, at their discretion, consider the appeal or forward it to an Appeal Panel. If the Dean considers the appeal, the student shall be informed of the outcome in writing.

**11.5.5.2 Faculty of Graduate Studies Appeals Committee**

The appellant may appeal the Dean's decision to the Faculty of Graduate Studies Appeals Committee within fifteen (15) working days of the date of the letter of decision. This is considered a second-level appeal.

An Appeal Panel will be struck, and a videoconference meeting set by the Faculty of Graduate Studies to determine whether the appellant has grounds to proceed to a Hearing. If the Appeal Panel determines that the appellant has not substantiated their grounds for appeal, the matter will not proceed to a hearing. The Panel will notify the appellant and the Dean of Graduate Studies of their decision in writing. If the Appeal Panel determines that the appellant has substantiated their grounds for appeal, the appellant and the Dean of Graduate Studies will be notified and a hearing will be scheduled.

If it is determined that the appeal will proceed to a hearing, the Appeal Panel may request additional information, or of its own volition, call additional witnesses.

**11.5.5.3 Hearing Procedures**

The Faculty of Graduate Studies shall inform the appropriate Department/Unit Head (or designate) of the nature of the appeal and request that they accompany the Faculty of Graduate Studies respondent as a co-respondent at the hearing. The co-respondent will be requested to provide a letter responding to the appeal no later than fifteen (15) business days before the date of the hearing. The respondent will be requested to provide a letter addressed to the Chair of the Appeal Panel no later than ten (10) working days prior to the hearing.

The appellant shall be advised by the Dean of the Faculty of Graduate Studies of the right to appear in person or to be represented by a student advocate, a fellow student or other full-time member of the University community not receiving payment for appearing or working for legal aid. It is highly encouraged that the student be represented by a student advocate. If the appellant wishes, one (1) member of their immediate family and/or a lawyer may be present but only as silent observers (i.e., they cannot participate in the proceedings). Should an appellant's lawyer be present, so shall be a representative from the University of Manitoba's Legal Counsel. The Faculty of Graduate Studies must be notified of any persons accompanying the appellant at least ten (10) working days prior to the hearing, and at least twenty (20) working days prior to the hearing if a lawyer will be present.

The appellant, respondent, and appeal panel shall have the right to call witnesses to appear before the panel. Witnesses are to be made available for questioning only and will not be privy to the appeal documents or the hearing proceedings in which they are not involved. The appellant must indicate their witness request in their appeal letter. The respondent shall indicate their desire to invite a witness to the Chair of the Appeal Panel no later than five (5) business days after receiving notice that the appeal will proceed to a hearing. It is the responsibility of the party calling witnesses to ensure that the witnesses are informed of the date and time of the hearing.

All documentation that the Appeal Panel will consider shall be made available through the Faculty of Graduate Studies to both the appellant and the respondent at least one (1) week in advance of the hearing with notification of the specific time and location of

the hearing. **No additional materials should be presented at the time of the hearing.** In the case where a request is made to submit additional materials, the Chair may postpone the hearing and allow no more than ten (10) working days for the other party to respond to the new materials.

Hearings shall be held in closed session unless at least one (1) party requests an open hearing and all parties involved in the proceedings agree to the request. During the hearing, the appellant or the respondent may request a change in the open or closed nature of the hearing, at which time the Appeal Panel shall determine its procedures.

The Appeal Panel shall convene prior to the arrival of the appellant (and/or representative) and the respondent to discuss the order of proceedings and questions raised by the appeal documents.

The order of proceedings is as follows:

- The appellant and/or representative will be invited to make an opening statement, followed by rounds of questioning by the Panel and then the respondent;
- The respondent will be invited to make an opening statement, followed by rounds of questioning by the Panel and then the appellant and/or representative;
- The Panel will have the opportunity to ask further questions of all parties;
- If applicable, witnesses will be called upon to enter the room individually. The Panel, appellant and/or representative and respondent will have the opportunity to ask questions;
- The appellant and/or representative and respondent will make closing statements. No new information is permitted to be presented at this time;
- The Panel will deliberate in camera (i.e., closed session).

All parts of the meeting required by the Appeal Panel to deliberate or determine the disposition of the appeal shall be held in camera. Such deliberations shall take into account all documentation provided by the appellant and respondent, as well as all testimonies heard during the hearing.

#### 11.5.5.4 Disposition

The Chair of the Appeal Panel shall inform the Dean of the Faculty of Graduate Studies in writing of the disposition of the appeal, the reasons for the decision, and any actions that may result. The Dean of the Faculty of Graduate Studies shall, in turn, inform the appellant, their representative, and the department/unit in writing of the disposition of the appeal, the reasons for the decision and any actions that may result. The appellant shall be informed of their right of appeal to the Senate Committee on Appeals, including relevant time limits. The Dean of the Faculty of Graduate Studies may inform the department/unit of any recommendations brought forward by the Appeal Panel.

#### 11.5.6 Appeals to Senate:

As per the University of Manitoba Governing Documents: [Students: Policy: Appeals Procedures](#), appeals to the Senate Committee on Appeals shall be filed with the University Secretary within twenty (20) working days after the mailing of the notice of decision from which the appeal is made.

#### 11.6 Discipline Appeals

The specific jurisdiction of each of the Disciplinary Authorities is outlined in:

- Table 1: Jurisdiction of Disciplinary Authorities for Student Academic Misconduct

FGS Academic Guide Regulation 2022/23	Supplementary Regulation
<ul style="list-style-type: none"> <li>• Table 2: Jurisdiction of Disciplinary Authorities for Student Non-Academic Misconduct</li> <li>• Table 3: <u>Disciplinary Actions and Disciplinary Authorities</u></li> </ul> <p>If the appeal is from a decision of the Dean of the Faculty of Graduate Studies, the appeal must be submitted to the Dean of the Faculty of Graduate Studies who will submit it to the Faculty of Graduate Studies Local Discipline Committee (also commonly referred to as the “L.D.C.”)</p> <p>If the appeal is from a decision of the L.D.C., the appeal must be submitted to the Secretary of the <a href="#">University Discipline Committee (U.D.C.)</a> who will provide the Dean of the Faculty of Graduate Studies with a copy.</p>	
<p><b>11.6.1 Discipline Appeal Deadlines</b></p> <p>If a student wishes to appeal a decision, the notice of appeal must be delivered in writing to the appropriate person(s) within ten (10) working days of the student being notified of the decision the student intends to appeal.</p>	
<p><b>11.6.2 Appeal of Disciplinary Action</b></p> <p>When the appeal is against a disciplinary decision made by the Faculty of Graduate Studies, the appeal routes and procedures as outlined in the following shall prevail: <u>Student Discipline Appeal Procedure</u>.</p> <p>The student shall clearly indicate in the notice of appeal whether they are appealing the decision on:</p> <ol style="list-style-type: none"> <li>1. the finding of facts;</li> <li>2. the disposition determined by the disciplinary authority; or</li> <li>3. both (1) and (2).</li> </ol>	
<p><b>11.7 Fee Appeals</b></p> <p>Please refer to the Registrar’s Office <u>webpage on fee appeals</u>. To initiate the Fee Appeal process, the student must complete a “Fee Appeal” form, available at the former link. For information about Fee Appeals, please visit the Registrar’s Office online or in person at 400 University Centre.</p>	
<p><b>11.8 Term Work Appeals</b></p> <p>Students are encouraged to discuss matters relating to grading of term work with their instructor in the first instance. Further appeals of grades on academic term work shall be directed, by the appellant, to the department/unit responsible for the course within ten (10) working days after the grades for term work have been communicated to students. Following receipt of the appropriate appeal form and evidence of payment of the refundable appeal fee, the department/unit shall consider the appeal and provide a decision within fifteen (15) working days. Please refer to the <u>Registrar’s Office website</u> for additional information.</p> <p>If the student has exhausted the term work appeals process through the Registrar’s Office, the student may appeal to the Faculty of Graduate Studies via the academic appeals process. The Faculty of Graduate Studies will only consider the appeal based on procedural error.</p>	
<p><b>11.9 Final Grade Appeals</b></p> <p>Please refer to the <u>Registrar’s Office webpage on grade appeals</u>. To initiate the Grade Appeal process, the student must complete a “Grade Appeal” form, available at the former link. For information about Grade Appeals, please visit the Registrar’s Office online or in person at 400 University Centre.</p> <p>If the student has exhausted the final grade appeals process through the Registrar’s Office, the student may appeal to the Faculty of Graduate Studies via the academic</p>	

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<p>appeals process. The Faculty of Graduate Studies will only consider the appeal based on procedural error.</p>	
<p><b>11.10 Assistance with Appeals</b></p> <p>The <u>Office of Student Advocacy &amp; Case Management</u>, 520 University Centre, provides information and assistance to students regarding all appeal processes. It is strongly recommended that students contact the Office of Student Advocacy &amp; Case Management to assist them with any appeal they are considering.</p>	
<p><b>APPENDIX 1: Thesis/Practicum Types</b></p> <p>A student/candidate may present a thesis/practicum in one of two acceptable formats:</p> <ul style="list-style-type: none"> <li>• Regular style</li> <li>• Manuscript/grouped manuscript style</li> </ul> <p>The type of thesis/practicum must be approved by the advisory committee and comply with all regulations of the Faculty of Graduate Studies and any supplementary regulations of the department/unit.</p> <p><b>A1.0 Regular Style</b></p> <p><b><u>A1.1 Prefatory Pages</u></b></p> <p><b>A1.1.1 Title Page</b></p> <p>The title page should contain the following information:</p> <ul style="list-style-type: none"> <li>• the title of the thesis/practicum</li> <li>• the name of the University</li> <li>• the degree for which the thesis/practicum is submitted</li> <li>• the name of the department/unit</li> <li>• the full name of the author</li> <li>• the copyright notation ©</li> </ul> <p>The title must be a meaningful description of the content of the research. The author's name should be in full, identical to the name under which they are registered and be consistent on all other documents. A sample title page can be found on this <a href="#">link</a>.</p>	
<p><b>A1.1.2 Abstract</b></p> <p>The abstract is expected to provide a concise, accurate account of the thesis/practicum. Recommended length is 350 words. An abstract should contain a statement of the problem, methods, results, and conclusions.</p>	
<p><b>A1.1.3 Acknowledgements</b></p> <p>The content of this single page is left to the discretion of the author. For example, the page may make reference to the student/candidate's advisor/co-advisor and advisory committee, to other individuals who have provided invaluable assistance to the development of the thesis/practicum, and to sources of financial assistance or other support.</p>	
<p><b>A1.1.4 Dedication</b></p> <p>A single page pertaining to a dedication is allowed.</p>	
<p><b>A1.1.5 Table of Contents</b></p> <p>This must list and provide page references to all elements of the thesis/practicum. The numbering and formatting must be identical to the way the material appears in the text.</p>	

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Page numbers should be right justified. A sample table of contents can be found at this <a href="#">link</a> .	
<p><b>A1.1.6 List of Tables</b></p> <p>This should immediately follow the Table of Contents and be of the same format. The list must include the number, name and page number of each table.</p>	
<p><b>A1.1.7 List of Figures</b></p> <p>This should immediately follow the List of Tables and be of the same format as the Table of Contents. The list must include the number, name and page number of each figure.</p>	
<p><b>A1.1.8 List of Copyrighted Material</b></p> <p>On occasion students/candidates include images, figures, photos and other materials from copyrighted sources. Students must ensure that they have authorization to use copyright protected materials in their thesis under a <i>Copyright Act</i> exemption or with direct permission from the copyright holder. A list of Copyrighted Material should follow the List of Figures and follow the same format as the Table of Contents. For further information on copyright see this <a href="#">link</a>.</p>	
<p><b>A1.2 Format</b></p> <p><b>A1.2.1 Styles</b></p> <p>The thesis/practicum should be written in a standard style manual that has been recommended by the department/unit. Manuals recommended by the Faculty of Graduate Studies include but are not limited to:</p> <ul style="list-style-type: none"> <li>• American Psychological Association, Publication Manual of the American Psychological Association</li> <li>• Kate L. Turabian, A Manual for Writers of Term Papers, Theses and Dissertations</li> <li>• The Modern Language Association of America, MLA Handbook for Writers of Research Papers</li> <li>• University of Chicago Press, The Chicago Manual of Style</li> </ul> <p>Students should always use the latest edition available. If there is a conflict between the instructions in this guide and the style manual chosen, the former should be followed.</p>	
<p><b>A1.2.2 Spelling</b></p> <p>Canadian, British or American spelling is acceptable and one style must be used consistently throughout the document.</p>	
<p><b>A1.2.3 Format</b></p> <p>The entire thesis/practicum must be in the same text font, style, and size.</p>	
<p><b>A1.2.4 Margins</b></p> <p>The margins must be consistent throughout the thesis/practicum (including appendices, diagrams, maps, photographs, charts, tables, etc.).</p>	
<p><b>A1.2.5 Page Numbers</b></p> <p>Each page of the thesis/practicum (including illustrative pages and appendices) must be numbered consecutively.</p>	
<p><b><u>A1.3 Footnotes, References and Appendices</u></b></p>	

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<p>Instructions in the style manual recommended by the department/unit should be followed. Regardless of which style manual is used, format selected must be consistent throughout the document.</p>	
<p><b><u>A1.4 Figures, Illustrations, Photographs and Design Drawings</u></b></p> <p><b>A1.4.1 Illustrative Material</b></p> <p>All illustrative material must be consistent throughout the thesis/practicum. All figures, illustrations, photographs and drawings must be numbered consecutively in Arabic numerals and accompanied with a title. The material should appear as soon as possible after as it is mentioned in the text. All original materials should be of high quality, with sharp and clear images.</p> <p><b>A1.4.2 Layout of Tables and Figures</b></p> <p>Each table and figure must have a number and title. The number and title should appear at the top or bottom of the table or figure as per style. The title of the table or figure should be as short as possible and indicate the major focus of the material within the table or figure.</p>	
<p><b><u>A1.5 Additional Materials</u></b></p> <p><b>A1.5.1 Consent and Access to Information Forms</b></p> <p>Sample copies of consent forms that were used to obtain consent from participants to take part in the information gathering procedures for the thesis/practicum must be included in an Appendix. Any personal information including signatures must be omitted from the submitted form to meet <u>F.I.P.P.A. regulations</u>.</p> <p>In some cases, approval from an agency, institution or corporation may have been required before the information gathering procedures could proceed. The original approval form for access should be retained by the student with a copy provided to the Faculty of Graduate Studies upon completion of the thesis/practicum.</p>	
<p><b>A1.5.2 Use of Copyrighted Material</b></p> <p>If the thesis/practicum includes copyrighted material (such as images, figures or more than an insubstantial amount of another person's work pursuant to the <i>Copyright Act</i>), students must determine whether there is authorization for reuse of material under the <i>Copyright Act</i> or if permission must be obtained from the copyright holder. A <a href="#">Sample Permission Letter</a> is available on the <a href="#">Copyright Office website</a>. In some cases, copyright holders prefer to use their own permission forms and/or will provide their permission electronically.</p> <p>Note that obtaining permission may take a considerable amount of time and this must be taken into consideration when meeting a thesis/practicum submission deadline. A reference to written permission having been obtained should be included under the image or text. The original form(s) signed by the copyright holders should be retained by the student as they may need to refer to it from time to time in future. . These forms do not need to be provided to the University of Manitoba and should not be included within the student's thesis/practicum.</p> <p>In some cases where permission is required the copyright holder cannot be located or the cost is prohibitive to use the text or image. In these situations, the text or image may have to be omitted from the thesis/practicum.</p> <p>Subsequently, information on where the reader can locate the image or text should be included, such as the URL, title of book/journal, volume and issue number, page number, publisher, and date of publication. A description of the purpose or significance of the text or image should be provided.</p> <p>For further information on copyright see: <a href="http://umanitoba.ca/copyright">http://umanitoba.ca/copyright</a></p>	
<p><b>A2.0 Manuscript/Grouped Manuscript Style</b></p>	



A thesis/practicum may comprise a paper or collection of papers, which are, or are about to be, published. The number of papers that comprise this style of thesis/practicum will be determined between the student and the advisory committee. The formatting of the thesis/practicum must be consistent throughout the thesis/practicum and the thesis/practicum cannot merely consist of several papers or articles contained within the one document.

Publication, or acceptance for publication, of research results prior to the presentation of the thesis/practicum does not supersede the evaluation of the work by the examination committee (*i.e.* does not guarantee that the thesis/practicum will be found acceptable). Examiners may specify revisions regardless of the publication status.

The thesis/practicum must follow the same prefatory information (1.1), spelling, formatting, margin requirements, page numbering (1.2), footnotes and appendices (1.3), figures, illustrations photographs and drawings (1.4) and any additional material (1.5) as those outlined above.

There must be an introductory chapter to the entire thesis/practicum that precedes any of the papers. The papers must contribute toward the overall theme that represents the thesis/practicum work and must be smoothly integrated into the flow of the thesis/practicum to produce a unified document. This may require changes or additions to, and re-writing of, any work that has been previously published.

The introductory chapter must explain the connection between the different chapters. This provides a logical link of the integration of the information. Not including an explanation of how the chapters connect may compromise the ability of the examiners to evaluate the thesis/practicum and, accordingly, there may be subsequent consequences.

The thesis/practicum must contain a concluding chapter that includes a discussion on how the entirety of the thesis/practicum, with its findings, provides a distinct contribution to knowledge in the research area.

In the case of multi-authored papers, the nature and extent of the student/candidate's contribution, and those of the other authors, must be explicitly specified in a section of the thesis/practicum entitled "Contributions of Authors".