

GRADUATE PROGRAMS IN THE FACULTY OF PHARMACY

INCLUDING SUPPLEMENTARY POLICIES AND GUIDELINES

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This document summarizes the general guidelines governing the admission and conduct of graduate studies programs in the Faculty of Pharmacy. All guidelines are subject to agreement with those in the current University Calendar and in the Faculty of Graduate Studies Academic Guide. These guidelines supplement policies and regulations published in the University Calendar.

The M.Sc. and Ph.D. programs in the Faculty of Pharmacy are conducted according to the general regulations of the Faculty of Graduate Studies, University of Manitoba, as they appear in the current University Calendar, the Faculty of Graduate Studies Academic Guide, and website (http://www.umanitoba.ca/faculties/graduate_studies/). Outlined below are the principal regulations governing the Faculty of Pharmacy M.Sc. and Ph.D. Programs.

The Graduate Studies Committee in Pharmacy administers admission to the Program and the execution of the Program in the Faculty. The committee is chaired by Hope Anderson. Further information about Graduate Studies at the University of Manitoba can be obtained from the Faculty of Graduate Studies website (http://www.umanitoba.ca/faculties/graduate_studies/), the Faculty of Pharmacy website (<http://www.umanitoba.ca/faculties/pharmacy/>), or the committee chair. Graduate students generally commence their work in September. Students are considered for acceptance into the graduate program on an ongoing basis. Students require a graduate Advisor before final acceptance into the graduate program. Students are funded either by obtaining a national, university or faculty scholarship, funds from their Advisor's research grant, or at personal expense.

Pre-Master's Program:

Pre-Master's Admission Requirements - Applicants normally accepted into the Pre-Master's Program hold a Bachelor of Science degree in Pharmacy or in a related area. Students not fulfilling the requirements for admission into the M.Sc. Program may take additional course work to strengthen and/or supplement their undergraduate academic record. Pre-Master's general regulations are set by the Faculty of Graduate Studies (Graduate Calendar). The Pre-Master's Program Structure will state the number of credit hours, the minimum time for completion and the expected G.P.A. for students wishing to be admitted into the M.Sc. Program.

Master's Program:

Master's Admissions Requirements - In order for an applicant to be considered for admission into the graduate program of the Faculty of Pharmacy, the applicant must meet the general admission requirements of the Faculty of Graduate Studies. The applicant must have a Bachelor of Science degree in Pharmacy or related field with a cumulative GPA of 3.0 or

better in the last two years of their undergraduate work. Applicants with the required standing in the last two years of the undergraduate program in Manitoba may be accepted directly into the M.Sc. Program. Undergraduate students interested in pursuing graduate studies should commence discussions with respect to their options at the end of the third year or beginning of the final year of their program. Besides giving time to discuss Program options available in the faculty, this provides time to make applications for personal support (e.g., scholarships, etc.). Application deadlines for graduate funding vary throughout the year depending on the funding agency and should be made by students in their final year of undergraduate study.

All graduate studies applications are reviewed by the Graduate Studies Committee in Pharmacy. This committee consists of three members, the committee chair and two faculty (one from the Pharmaceutical Sciences Division and one from the Clinical Division), who are members of the Faculty of Graduate Studies and will be appointed by the Dean of Pharmacy; and a graduate student appointed by the Dean of Pharmacy. Normally the student committee member will be enrolled in the Ph.D. program. This Committee will meet as necessary to evaluate the qualifications of all applicants seeking admission to the graduate program.

Criteria used by the Graduate Studies Committee for selecting applicants include: (i) GPA or equivalent, class standing if available; (ii) undergraduate/graduate awards received in connection with academic and/or professional achievement; (iii) recommendations from referees particularly with regard to their appraisal of applicant's research ability and potential; (iv) publications in scientific or professional journals. The Committee also takes into consideration the availability of suitable supervision and physical facilities; with particular regard to the suitability of these resources to satisfy the graduate program objectives of each applicant.

Upon acceptance into the graduate program:

1. An Advisory Committee will be constituted for the M.Sc. program (see University of Manitoba Graduate Calendar for description of committee membership). The Committee will meet a minimum of once per year to review the student's progress and must sign the Annual Progress Report to allow the student to register in the next session.
2. All students enrolled in a graduate program in Pharmacy are required to include, as part of their course work, Pharmacy Seminar PHRM 7160 and PHRM 7170.
3. An oral defence of the master's thesis is required upon acceptance of the written thesis.

GUIDELINES FOR THE SCHEDULING AND CONDUCT OF THE M.Sc. ORAL EXAMINATION IN THE FACULTY OF PHARMACY

M.Sc. students must pass an oral examination of the subject of their thesis, and matters relating thereto, before they obtain the M.Sc. degree. On approval of the written thesis by the Examining Committee, the student will proceed to the oral examination. The oral examination will be conducted by the Chair, Graduate Studies Committee, Faculty of Pharmacy, or designate. Examining Committee will normally consist of the student's Advisor and members of the Advisory Committee. In the event that the Advisor or any of the Advisory Committee members are unable to be present, notice should be given in sufficient time to obtain a substitute acceptable to the Chair, with enough time for the substitute to read the thesis. The oral examination may be cancelled if the Advisor and the Advisory Committee members, or agreed substitute(s), are not present.

Arrangement of the oral examination:

The Advisor will arrange the time and place for the examination in consultation with the Chair, Advisory Committee, and candidate.

Advertising the oral examination:

The time, place and thesis title for the oral examination will be advertised in the Faculty of Pharmacy along with other suitable locations, at least one week prior to the examination.

Documentation:

Copies of all examiners' reports, together with release and copyright forms as required, will be made available to the Chair at the examination.

Conduct of the examination:

General introduction of the examiners and an explanation of the conduct of the examination will be made by the Chair. The Chair will request the candidate to present the thesis clearly and concisely in 25-30 minutes. The ability of the student to present their thesis in the time required will be considered part of the examination process. At the conclusion of the candidate's presentation, examiners will be invited to ask questions, prior to accepting questions from other faculty and members of the audience. At completion of questions directed to the candidate, faculty, members of the audience, and the candidate are asked to leave so that a confidential meeting of the Examining Committee may be held. Each examiner individually will be asked to comment on the candidate's performance, ability to answer questions, and whether the candidate should pass or fail the oral examination. Since the content of the thesis has been approved previously by the Examining Committee, any further revisions required, as well as procedures for their completion, will be arranged in discussion with the Chair. Where agreement cannot be reached, the circumstances will be passed in writing to the Dean of the Faculty of Pharmacy by the Committee Chair, and all committee members will be copied on the communication. Decisions to pass the candidate must be unanimous or the

examination must be reported as a failure. The decision is to be signed by the members of the Examining Committee on the appropriate 'Oral Examination' form and reported to the Dean of the Faculty of Pharmacy. In case of failure, a second attempt may be scheduled. If the second attempt is unsuccessful, the student will be required to withdraw from the program. The thesis Advisor shall ensure that all revisions are made to the satisfaction of the Examining Committee members. If members of the Examining Committee wish to see the required revisions, they should so indicate by withholding their signatures on the 'Oral Examination' form until such time as the final document, with the required revisions, is presented to them. The candidate is invited back into the room and informed of the result of the examination, the nature of revisions, and the method of approval of the revisions.

After the examination:

The Chair will obtain signatures for the M.Sc. Thesis Approval form (to be forwarded to Faculty of Graduate Studies) and the 'M.Sc. Oral Examination' form (to be retained in the Faculty of Pharmacy).

The Advisor will, with the agreement of the Thesis Committee, approve the final revisions to the thesis. The candidate (or advisor) shall submit two unbound copies of the thesis with all completed revisions to the Graduate Studies Office, together with all additional documentation ('M.Sc. Thesis Approval' form, 'Graduate Studies Exit Questionnaire') required by the Faculty of Graduate Studies.

GUIDELINES FOR THE Ph.D. PROGRAM IN THE FACULTY OF PHARMACY

Ph.D. Program:

The Ph.D. program will be administered in accordance with the regulations of the Faculty of Graduate Studies as detailed in University of Manitoba Graduate Calendar.

General:

The Ph.D. program in the Faculty of Pharmacy will be primarily a research-based degree challenging the candidate to independently demonstrate his/her ability to conceptualize, plan and carry to fruition original research in her/his field of specialization.

Graduate Studies Committee in Pharmacy:

This committee is a standing committee responsible for the administration of the Ph.D. program, namely: admission, approval of the student's advisory committee, candidacy examination and approval of thesis examiners. The Graduate Studies Committee will have the over-sight function to ensure that the requirements of the Ph.D. program are fulfilled and to inform and advise the Dean of Pharmacy on matters relating to the program.

Admission Requirements:

Applicants for the Ph.D. program in Pharmacy must first satisfy the general requirements for admission as outlined in the Academic Guide of the Faculty of Graduate Studies. A M.Sc. degree will normally be required for entry directly into the Ph.D. program, although students demonstrating satisfactory progress (normally cumulative GPA of 3.75 or more) in the M.Sc. program may apply for transfer to the Ph.D. program, subject to the concurrence of the student's Advisory Committee and the Pharmacy Graduate Studies Committee. Final approval for the transfer must be authorized by the Dean of the Faculty of Graduate Studies.

Selection Process:

When an application with complete supporting documentation is received in the Faculty of Graduate Studies, the Committee chair, Faculty of Pharmacy, will inform the appropriate Faculty member(s), whose research area overlaps that specified by the applicant, of the availability of a potential graduate student. The aim is to achieve a match between the applicant's and the Advisor's research interests. The candidate's application will be made available to all faculty for their perusal. However, the application form will remain in the Pharmacy Office. If a faculty member wishes to accept the student into their research program, acceptance also must be obtained from the Faculty of Pharmacy Graduate Studies Committee and notice of approval will be forwarded to the Faculty of Graduate Studies by the Chair of the Graduate Studies Committee, Faculty of Pharmacy.

Minimum Course Requirements:

A minimum of 12 credit hours of course work at the 700 level will be required beyond the M.Sc. degree or its equivalent. A minimum of 24 credit hours, of which 18 must be at the 700-level, will be required beyond the Honours Bachelors degree when the M.Sc. degree is not required. The final number of credit hours of required course work in and outside the

Faculty of Pharmacy will remain at the discretion of the student's Advisory Committee and the Pharmacy Graduate Studies Committee.

Seminar requirement:

Upon completion of Pharmacy Seminar (PHRM 7160 and PHRM 7170) students in the Ph.D. program are required to present one 15 minute research talk as part of the Faculty Seminar program during each year they are registered as a full time student

Student's Advisory Committee:

Each Ph.D. student will have at least one Advisor (who also is a member of the Faculty of Graduate Studies) with the responsibility to advise and direct the student in matters relating to course work, research and thesis. It is the responsibility of the Advisor(s) to establish an Advisory Committee for the student. Composition of the committee will follow the guidelines established by the University of Manitoba Graduate Calendar. The student's Advisor will advise the student in matters relating to his/her graduate program and to monitor the student's progress in his/her course work and research.

The program of study, which is to include the course work to be taken and the research area chosen for the dissertation, is to be approved by the student's Advisor and Advisory Committee and reported to the Faculty of Graduate Studies on the 'Program of Study' form.

Annual Review:

Initially, prior to undertaking any substantial portion of research work for the thesis, the candidate will submit a thesis proposal for approval to his/her Advisory Committee outlining the necessary preparatory work in support of the proposed research. The report should include, but not be limited to, the research objective, literature survey, experimental procedure and type of data analysis involved. In addition, the primary Adviser will submit a report addressing funding issues related to the project. Recommendation for approval will be reported to the Faculty of Graduate Studies on the 'Annual Advisory Committee Report Ph.D. Students' form.

Subsequently, on an annual basis, the student's Advisor will call a meeting of the Advisory Committee to conduct a formal review of the student's progress in his/her course work and research. A report of the results of each meeting is to be filed with the Faculty of Graduate Studies on an 'Annual Advisory Committee Report - Ph.D. Student' form by June 30th of each year. A rating of unsatisfactory progress will be considered a failure and the student's progress will normally be reviewed again within 6 months. A second failure will require the student to withdraw from the Ph.D. program.

Candidacy Examination:

This examination is a formal oral examination to be held within the first two years after the student's registration in the Ph.D. program. It is expected that at this stage of the student's program, he/she has made a serious effort toward research. The purpose of the examination is to determine whether the student has the ability to evaluate scholarly works in his/her specialty, and to plan and conduct independent research as required for the Ph.D. degree.

The examination will be conducted by a committee consisting of the student's Advisory Committee plus a member of the Graduate Program Committee, the latter serving as Chair.

The Candidacy Examination is closed, being attended only by the student and the examining committee. The student will make an oral presentation on research completed along with an outline of planned work, including details on methodology. The presentation will last not more than 30 minutes. This will be followed by questions from the committee examining the student's understanding and assessment of completed and projected research work. The examination will consist of questions from the examining committee to assess:

- I. Depth of knowledge in research area (i.e., review of relevant literature);
- II. Breadth of knowledge in overall areas (coursework, etc);
- III. Critical thinking (as defined by the ability to make reasoned judgments).

After the question period, the examining committee will meet *in camera* to determine whether the result of the examination is a Pass or Fail, the decision must be unanimous; A split decision is to be considered a failure and the result will be reported to the student, the Chair of the Graduate Committee, Associate Dean Research, Dean of the Faculty of Pharmacy, and on the 'Report on the Ph.D. Candidacy Examination' form to the Faculty of Graduate Studies. Successful completion of the examination will advance the student to candidacy status for the Ph.D. degree. A student who fails the candidacy exam may attempt the examination a second time. A student failing the second examination will be required to withdraw from the Ph.D. Program.

Thesis Submission:

On completion of the research work, the candidate will submit a written thesis to his/her advisor who will examine it and return it within six weeks with comments for possible revision. The revised thesis which may be used as the basis for a final Annual Review will then be submitted to the Faculty of Graduate Studies who will distribute it amongst the candidate's Advisory Committee.

Final Examination:

The final examination for the Ph.D. degree will involve (1) examination of the candidate's thesis and (2) oral examination of the candidate on the subject matter of the thesis.

The candidate's Advisor will recommend to the Faculty of Graduate Studies the names of four thesis examiners which are to include the candidate's advisor, the advisory committee, and an external examiner. The names of the examiners will be forwarded to the Faculty of Graduate Studies on the Thesis Title and Examiners form. Copies of the thesis will be delivered to the Faculty of Graduate Studies which will distribute them to the thesis examiners.

Each examiner, except the candidate's Advisor, is to submit a written evaluation of the thesis to the Dean of Graduate Studies, placing the thesis in one of the following categories:

- I. acceptable as is or with minor revisions,

- II. meets basic requirements of a Ph.D. thesis requiring more than minor revisions,
- III. unacceptable without major revision,
- IV. rejected,

and indicating whether or not the candidate may proceed to the oral examination.

The final oral examination of the candidate will be arranged by the Dean of Faculty of Graduate Studies as an oral defense of the thesis open to the University community. Normally the examination committee will consist of the thesis examiners with the Dean of Graduate Studies or designate as Chair. The composition of the examination committee is to be reported to the Faculty of Graduate Studies on the 'Thesis Title and Examiners' form. The examination is to consist of an oral presentation by the candidate which summarizes the salient points of his/her research (30 min), followed by questions from the examination committee. Final judgment of the examination of the thesis and oral examination is made *in camera* by the committee and the results reported as *approved* or *not approved* to the Dean of Graduate Studies. The decision by the committee must be unanimous, anything less will be ruled a failure.

APPEAL PROCEDURE

The appeal mechanism for students registered through the Graduate Studies Committee for pharmacy shall be as follows:

In the event that a student is not satisfied with an outcome, every attempt will be made to resolve the issue informally within the Faculty. This may involve discussion with individual professors and/or the Dean of the Faculty of Pharmacy. The student will be notified in writing by the Dean of the nature and the disposition of this conflict.

Should it not be possible to resolve the issue through informal discussion, an appeal may be made in writing to the Committee on Graduate Study Appeals in Pharmacy. This formal appeal must be made within twenty-one days of the date of the letter of disposition of the complaint.

The Committee on Graduate Study Appeals in Pharmacy shall be appointed on an *ad hoc* basis by the Chairman of the Graduate Studies Committee in Pharmacy. It shall be comprised of two members of the academic staff who are members of the Faculty of Graduate Studies, together with a graduate student nominated by the graduate students conducting research in the Faculty of Pharmacy. The committee shall select its own chairman, who shall vote only in the event of a tie.

The student will be advised of the opportunity for assistance in preparing the appeal, which is available through the Student Advocate's office. The student may be represented at the appeal hearing by the Student Advocate.

The committee will hear the appeal in open or closed session as agreed by both parties to the appeal. In the event that agreement cannot be reached, the appeal will be heard in closed session.

The decision regarding the appeal shall be communicated to both parties at the earliest opportunity following the appeal.

Hearing of appeal cases will be scheduled as soon as possible, following receipt of the formal appeal in writing.

In the event that the appellant is dissatisfied with the ruling of the Committee on Graduate Studies Appeals in Pharmacy, he/she may lodge a formal appeal with the Faculty of Graduate Studies, within twenty-one days of the date of receipt of the decision of the Committee.

ADDITIONAL POLICIES & GUIDELINES

GRADUATE STUDENT FUNDING & AWARDS

Graduate students are requested to bring promptly all paperwork regarding Studentships, Awards, etc. to the Dean's Office. The Dean's Office does not automatically receive notice of these awards and without this documentation, funding for your graduate work may be delayed.

TRAVEL AWARDS

If requesting funding from the Faculty of Graduate Studies for travel, please see the Dean's Office in the Faculty of Pharmacy, for information regarding processing travel forms and awards, prior to making travel arrangements.

The Faculty of Graduate Studies has specific guidelines regarding awarding and reimbursing graduate students. Please check with the Awards Assistant in Graduate Studies regarding travel policy.

COMPUTER USAGE & CARREL SPACE

All graduate student carrel space will be assigned by the Associate Dean (Research).

Some Faculty of Pharmacy computers have been designated for graduate student use. Please check with the Associate Dean's (Research) Office for the location of these designated computers.

Please do not install programs, internet plug-ins, software or music files from the internet on any Faculty of Pharmacy computers. Turn off computers overnight.

For all computers purchased on research grants and designated by advisors, please check to make sure your advisor has authorized the installation of all programs.

If you have computer problems, please have your advisor fill out the 'Request for Computer Assistance' form available in the Associate Dean's (Research) office and return it to the office when completed.

FACULTY OF PHARMACY GRADUATE REGISTRATION REMINDERS

Pharmacy Graduate Students, wishing to take courses in other Faculties, must obtain permission from their advisor and written permission from the course instructor before they can register with Graduate Studies.

Graduate Students and their Advisors have been advised that Graduate Studies will no longer be registering students. Web registration will be available. Please see the Faculty Administrator in Pharmacy for assistance.

Please promptly provide the Faculty Administrator in Pharmacy, copies of all documentation pertaining to your Graduate Program.

When registering, please note (listed below) the course code is very important (*information on course codes can be found in the Graduate Calendar*).

- 'M' indicates the course will be counted towards your GPA and the total number of credits needed for your degree.
- 'AX' indicates the course is deemed useful for your program and you will not be charged for it, however, it is not counted as a credit or calculated in your GPA.
- 'OS' means you are taking a course out of interest and not part of the program, therefore, you must pay the full course fee.
- 'AU' means you are taking the course without credit (auditing) or counting it towards your GPA, therefore you pay half the course fee.