

**Department of Pharmaceutical Sciences
University at Buffalo
Departmental Policies and Guidelines
For Graduate Students**

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1. General Policies and Student Responsibilities:

The graduate programs in the Department of Pharmaceutical Sciences are subjected to the policies and procedures promulgated by the Graduate School of the University at Buffalo. A detailed manual for graduate students and advisors is available through

www.grad.buffalo.edu/grad-docs/adobe/pdf/policies_procedures.pdf

The following guidelines are additional to those of the graduate school.

1.1. *Academic Credits and Student Responsibility in their Management*

You are **personally** responsible for managing your own credit load each semester, so as to satisfy the following requirements and constraints:

- A. If you are a Ph.D. student and are receiving an assistantship, you are allowed a maximum total of 72 graduate credit hours of tuition waiver, when such waiver is available and is approved by the Department. If you are a U.S. citizen or permanent resident, you should apply for New York State Residency as soon as possible (usually after one year of residency, see <http://wings.buffalo.edu/services/stu-acc/resident.html>). Failure to do so may require you to pay the difference between in-state vs. out-of-state tuition.
- B. You must satisfactorily complete at least 30 graduate credit hours for a M.S. degree, or 72 graduate credit hours for the Ph.D. degree;
- C. The Department will not pay for any excess credits beyond 72 graduate credits hours for Ph.D. students. Such payment will have to be made either by (a) the University after successful petition to the Graduate School, (b) the supervising faculty member, or (c) by you yourself.
- D. No tuition waiver will be provided for any course that you have to repeat for academic reasons, even though you have not yet expended the total 72 credit hours of tuition waiver.
- E. Full-time registration is satisfied by > 12 credit hours per semester if you are not supported by an assistantship, and > 9 credit hours/semester if you are supported by an assistantship. Registration for less than these credit hours is permitted after the student has completed his/her Departmental Preliminary Examination. You should check with the Graduate School to ensure that your registration complies with University requirements. You should also be aware that different student-loan programs, the U.S. Immigration and Naturalization Service, health insurance carriers, etc. can impose different rules for full-time student registration. It is your responsibility, and yours alone, to make sure that your course load is consistent **with all the obligations** that are specific to you.
- F. Departmental credit requirements: You are required to complete the following courses satisfactorily.

M.S. program

Requirements for all students	Credit hours
1. Minimum department credit hours, excluding research, seminars and tutorials*	12
2. Minimum # of didactic credits*	18
3. Minimum total credit hours*	30
4. Presentation of a departmental seminar, usually at the end of the program	
Specific course requirements for MS in Pharmacometrics	
PHC504 Computational Basis for Pharmaceutical Sci	1-3
PHC607 Intermediate Pharmacokinetics	3
PHC608 Advanced Pharmacokinetics	2
PHC609 Pharmacodynamics	2
PHC506 Biometry in Pharm Sci	3

* See below for more details

1. These 30 credits may include all course types# (D, L, T, R, E, see next page), except as indicated below:
 - Of these 30 credits, at least 18 credits must be satisfied by course types D, L or E;
 - Of these 18 credits, at least 12 credits must be satisfied by course type D.
2. A minimum GPA of 3.0 must be maintained every semester and throughout the program. Required courses with a grade lower than a B⁻ will not count toward the 30-credit requirement, and must be repeated with a grade of B⁻ or above.
3. At the discretion of the Department's Graduate Affairs Committee, students may be required to repeat other courses with grades lower than B⁻.

course type are defined as: D = Didactic, L = Laboratory, T = Tutorial, R = Research, E = Elective

Courses recommended for various MS concentration areas:

I.	Drug Formulation/Delivery/Development
II.	Drug Metabolism/transport
III.	Drug Analysis
IV.	Experimental Pharmacokinetics & Pharmacodynamics
V.	Pharmacogenetics/pharmacogenomics
VI.	Clinical Research
VII.	Pharmacometrics

Ph.D. program

Course #	Course title	Credit hours
Required courses		
PHC500	Principles of Drug Development	2
PHC507	Principles of Biological Transport	2
PHC508	Drug Delivery: Principles and Applications	2
PHC607	Intermediate Pharmacokinetics	3
PHC630	Drug Metabolism and Disposition	3
MT 501	Methods of Analysis (counts as a dept course)	4
PHC 506 or STA527	Biostatistics (depending on background and desired depth of knowledge, both courses can be taken if desired)	3
Other Requirements		
Various	Elective courses totaling >10 credit hours of which >6 credit hours must be courses taken outside the department	>10
PHC 511	Research Proposal	3
PHC 599	Supervised teaching (2 credits/semester when assigned as a TA)	1-4
PHC613/ 614	Departmental seminars (1 credit/semester for the first 8 semesters)	var
PHC502	Selected topics (for journal clubs and research group meetings, may register for 1 credit per semester if you have enough credit "room")	var
PHC615/ 616	Thesis Research (students must register for at least one credit of research in every semester after successful completion of the departmental preliminary examination, registration in these courses in the first 4 semesters is optional, depending on credit "room")	>4
Total # credits needed for satisfactory completion of the Ph.D. program		72

G. Transfer credits: You are allowed to transfer up to 36 qualified credit hours in fulfillment of your Ph.D. requirements, subject to approval of the Director of Graduate Studies (DGS). However, such transfer credits are included within the 72 credit hours of tuition waiver. Thus students who transfer credits may run the risk of not having enough "tuition-waiveable" credit hours to take electives. It is therefore more advisable to seek a departmental waiver of the relevant course requirements (when you have already taken equivalent courses outside UB), rather than officially transfer such credit into your Ph.D. dossier. The Director of Graduate Studies, upon the approval of the course instructor concerned, may grant such waivers.

1.2. Graduate Assistantships for Ph.D. Students

Full-time students in good standing in the Ph.D. program of the Department of Pharmaceutical Sciences are eligible for assistantships and tuition scholarships.

Ordinarily, such support is continued until the end of the fourth year of study provided that funds are available, the student makes satisfactory progress in the program, and responsibly discharges duties as a graduate student.

A. Priority

- Full-time students in good standing previously enrolled in the Ph.D. Program.
- Students newly admitted as full-time students in good standing in the Ph.D. program. Priority of granting aid to students in this category will be based on their previous academic record and experience, and on projected availability of funds.
- All other graduate students in the Department's Ph.D. program who are judged by the faculty to have a reasonable probability of completing their programs.

B. Level of Support - Except for students who may be honored by a special fellowship, approximately equal levels of support are provided to all eligible assistants. A student who receives an outside fellowship (e.g., AFPE, or PhRMA fellowship), through his/her own merit and application, may receive a total stipend up to 140% of the departmental stipend.

C. Duties - Assistants normally will be asked to provide up to two full-time equivalents of service broadly related to academic teaching and service (as defined by the Department and assigned by the Department Chair or his/her designate). **Students are required to obtain a 'Satisfactory' grade in PHC599: Supervised Teaching. Students with an "Incomplete" or "Unsatisfactory" grade will be required to repeat PHC 599: Supervised Teaching.**

D. Removal from Assistantship - An assistantship is usually continued for the duration of a student's program. It may be terminated sooner if:

- The student loses eligibility by loss of good academic standing or by transferring out of the Ph.D. program. The Graduate School states that "Good academic standing means that a student is making acceptable progress towards a graduate degree and is eligible to register and take academic coursework at the university for the current semester." Courses submitted for candidacy must average with a minimum GPA of 3.0. A student who receives a grade of U, D or F or has a GPA for the semester below 3.0 will be placed on academic probation. The DGS will stipulate academic conditions for the student to regain good academic standing and to be removed from probation status. Failure to meet these academic conditions may result in removal from assistantship and/or the program.
- For persisting in unsafe practices or refusing to carry out assigned duties without an acceptable reason.
- For failure to make satisfactory progress in the program.
- For serious infractions of University regulations, including academic dishonesty.

E. Renewal/Continuation - As previously stated, an assistantship is normally automatically renewed for a total of four years provided that funds are available, the student remains in good standing and makes satisfactory progress in the program.

- F. Right to Appeal - Students are entitled to petition the Department faculty (through the Director of Graduate Studies, DGS) for review of any matter. During such appeals, the student may speak on his/her own behalf, may submit a written statement, or may ask a faculty member or another graduate student in the Department to act as his/her advocate. Subsequent written appeal may be made first to the Dean of the School and subsequently (if necessary) to the Dean of the Graduate School.

1.3. Funding of BS/MS and MS students

1. BS/MS and MS students do not receive tuition waiver through department funds.
2. BS/MS and MS students may have outside employment that is consistent with their visa status.
3. BS/MS and MS students may be funded through individual grant support to carry out research work, whether or not such work is related to the graduate project. However, students should not receive payment for work that will be used to satisfy requirements for academic credits. A faculty member may invite applications for assistance in her/his research. Such invitations will be announced in the department listserv. Qualified students may apply directly to the faculty member concerned.
4. Consistent with our policy for Ph.D. students, BS/MS and MS students who obtain outside funding on their own merit may receive up to 140% of the prevailing departmental PhD funding rate.

1.4. Attendance and Leaves

- A. Policy on Vacation Leave: If you are receiving a 12-month graduate assistantship, you are expected to be involved in advancing your Ph.D. program **on a full-time basis**. In addition to University holidays announced for faculty and staff, you are allowed up to two weeks (10 working days) of vacation leave per year. **You must obtain the approval of your faculty supervisor or the DGS if you intend to take any leave of more than a few days.** If you wish to have a longer leave (e.g., for the purpose of going overseas), you may accumulate your vacation leaves from previous years.
- B. Policy on Leave for Personal Illness (same as NY State policy): Following one semester of service, or its equivalent, you may be granted leave for personal illness at the discretion of the supervising faculty or the Director of Graduate Studies. A maximum of 5 days may be granted during any one year (September 1 to August 21) for absences due to a temporary disability.
- C. Family and Medical Leave Act (FMLA) Leave (same as NY State policy): You are entitled to take up to 12 weeks of unpaid leave per year for the following reasons:

- The birth and care of your newborn child (leave must be concluded within one year of birth)*
- The placement of your child for adoption or foster care (leave must be concluded within one year of placement)*
- To care for your spouse, parent, or child with a serious health condition
- When you are unable to work because of a serious health condition

*Spouses who work for the same department are only entitled to a combined total of 12 weeks.

1.5. Academic Dishonesty: for details, see <http://wings.buffalo.edu/provost/du/catalog/1994/regulation/integrity/>

The University community depends upon shared academic standards. Academic dishonesty in any form by any member of the University community represents a fundamental impairment of these standards.

When an instance of suspected or alleged academic dishonesty by a student arises, it shall be resolved according to the procedures set forth by the University. These procedures assume that many questions of academic dishonesty will be resolved through informal consultation between the student and the instructor (see Part I below). If, however, such informal consultation fails to resolve the question, or the instructor considers formal proceedings warranted, the formal procedures described in Part II below must be used.

It is recommended that the instructor consult with the department chair and/or the Graduate School Dean if there are any questions regarding these procedures.

Examples of academic dishonesty are listed in Section 5.00 of the Student Rules and Regulations.

- Part I. Informal Proceedings
- Part II. Formal Proceedings
- Part III. Miscellaneous Provisions

1.6. Departmental Facilities

The department's physical facilities and resources are shared by all of its members. Thus, it is everyone's responsibility to protect and safeguard these facilities and resources. If you notice something unusual, e.g., an accident, a freezer alarm, a major flood or spill, suspicious activities (e.g., a burglary) on the floor, etc., please give aid to the affected individual(s), and report the activity to the relevant offices (e.g., department office, campus police at 2222). **Do not leave it for somebody else to do.**

Many of the scientific instruments and office equipment are shared. Make sure that you consult with somebody knowledgeable about these equipment items before using them. Safety for yourself, the people around you, and the equipment itself should be your first concern. The equipment area should be left as clean as possible after your use.

The departmental photocopier is NOT to be used for copying personal items. It should be used ONLY for departmental activities, which include your research work, but not your individual course work, unless specifically approved by a faculty member. If you are unsure, please check with your advisor.

1.7. Removal from Program

In addition to the conditions stated in section 4.2, the following also represent grounds for removal of a student from the department's graduate program:

- Failure to meet the academic requirements of the department (including probational terms) and/or those of the Graduate School
- Academic dishonesty
- Continual unsafe and detrimental conduct, in spite of repeated warnings

Removal of a student from a graduate program must be approved by a majority vote of the Graduate Faculty of the Department. The student is allowed to address a meeting of the Graduate Faculty discussing his/her removal, with the optional presence of an advocate.

1.8. Grievance Procedures

Any student with a grievance should first try to resolve the problem directly with the individual involved. If that fails, and if the grievance does not involve the student's major advisor, the advisor should be approached for advice and to perhaps serve as a mediator. If that fails, or if the grievance involves the major advisor, the student should approach the Director of Graduate Studies, or the Department Chair, who may be able to resolve the problem directly, may appoint an ad hoc committee, or may suggest the student's graduate committee to examine the problem. Most problems can probably be resolved at or below the level of the Department Chair. The direction of higher levels of appeal may differ depending upon the nature of the grievance, but might include the Dean of the School of Pharmacy, the Dean of the Graduate School, or the Chairman of the Health Sciences Divisional Committee of the Graduate School.

1.9 Annual Progress Report

Name: _____ Person Number: _____

Portion to be completed by student: Attach copy of current unofficial transcript

Academic Progress

Date of admission to the current program: _____
Expected completion Date: _____
Date or expected date of preliminary or qualifying exams: _____
Passed? _____
Date or expected date of dissertation proposal defense, if applicable: _____
Date or expected date of dissertation defense: _____
Semester GPA _____
Graduate GPA: _____
Number of Incomplete Grades: _____
Remaining Coursework: _____

Professional Performance and Potential

1. Briefly comment on your academic/research progress during the past year. Note areas in which you are experiencing any difficulty.
2. Briefly comment on your progress towards your career goals during the past year.
3. What are your academic goals for the coming year?

Student should provide the following information

1. Papers published or submitted
2. Abstracts accepted/Presentations at professional conferences
3. Honors/awards/grant or fellowship applications
4. Participation in teaching
5. Participation in an internship
6. Service to Department, School, University or a Professional Organization
7. Financial support received (TA, RA, internal fellowship, etc.)

University at Buffalo
Annual Progress Report for Ph.D. Students

Name: _____ Person Number: _____

Portion to be completed by Dissertation Advisor (if identified) and Department Chair or DGS;

Academic Performance

1. _____ The student's performance is outstanding and he/she should be commended.
2. _____ The student's performance is satisfactory.
3. _____ The student's current academic performance is below standard and a probationary letter should be issued.

Please comment on the overall academic/research progress of the student. Include teaching experiences, if applicable:

Signatures:

Student: Your signature below indicates that you have discussed the contents of this progress report with your dissertation advisor.

Student: _____ Date: _____

Dissertation Advisor: Your signature below indicates that you have discussed the contents of this progress report with the student

Dissertation Advisor: _____ Date: _____

Dept. Chair or DGS: _____ Date: _____

The original progress report should be placed in the student's file and copies given to the student and the thesis advisor.

2. Guidelines for Incoming Ph.D. Students:

2.1. Laboratory Rotations for Incoming Students

A. Purposes of laboratory rotations:

- To familiarize you with the research interests and capabilities of each faculty member who is interested to enroll students into her/his laboratory during that particular year;
- To allow faculty members to meet with interested students individually, and to outline to these students in some details the research projects that are available to them;
- To make you aware of several laboratory techniques that are ongoing in selected laboratories;
- To allow you to gather information for the selection of a laboratory for your Ph.D. project.

B. Procedure

- You are required to attend a series of orientation lectures in which various faculty members will make presentations about their research work. These orientation lectures are scheduled during the beginning weeks of the Fall semester;
 - Between October 15 to February 1 of the entering academic year, you must complete the following tasks:
1. No later than October 15, submit to Dr.Murali Ramanathan the names of 3 faculty members in whose laboratories through which you are interested to rotate;
 2. After consultation with the faculty (for the purpose of balance), Dr. Ramanathan will inform you which two laboratories you have been assigned for rotation;
 3. You should complete the following requirements before February 1 for each of the two faculty members assigned;
 - (a) Attend at least 4 journal club/research meetings supervised by the faculty member
 - (b) Make an appointment and meet with the faculty member to discuss possible available research projects
 - (c) Meet with members of the faculty's laboratory to learn about 3 experimental techniques that are ongoing in that laboratory
 - (d) Submit to the faculty member a type-written report (i) describing your understanding of the 3 experimental techniques (maximum: 1 page each technique, double space), (ii) describing your understanding of one of the research projects that has been discussed
 - (e) Return to each of the faculty member, before February 7, and obtain a statement from her/him indicating that you have satisfactorily completed the rotation. Submit this statement to Dr. Ramanathan by February 10.

2.2. Choosing a research advisor

- A. No later than February 15 during your first year of enrollment in the Ph.D. program, seek an appointment with Dr. Ramanathan, or email him, to indicate your preferences for a research advisor. Provide at least two names if possible. If you are not prepared to choose an advisor at that time, you may request a postponement.
- B. The department's Graduate Affairs committee will review all choices, and make decisions regarding laboratory assignments as soon as possible. You will receive confirmation of your choice of advisor no later than April 30.

3. Guidelines Regarding Laboratory Rotation and Advisor Selection for Incoming MS Students

All incoming MS students should participate in the research orientation sessions held during the first part of the Fall semester, in order to be familiar with the research projects that are available in the department. MS students are not required to undertake laboratory rotations during the first semester, although they are welcomed to do so if they believe that these rotations are helpful to them for selecting an advisor. Students should choose a research advisor by February 15 following the semester of entry.

3. Rotation Policy for All Incoming Students

1. All NEW Ph.D. and Masters Students are required to take the special orientation class coordinated by Dr. Fung in the Fall semester. Faculty will be invited to present their research interests in 30-minute talks to this class during the early part of this course.
2. All new Ph.D. students are required to arrange and meet with at least 5 departmental faculty and discuss their research interests. At least two of the meetings should be with Assistant Professors. The number of required Assistant Professor meetings will be revised if the overall number of the Assistant Professors in the Department changes.
2. Students are free to make arrangements for rotations with individual faculty, if desired. The conditions of the rotations will be determined by the individual professor.
4. Ph.D. students choices for Thesis Advisors are due by November 30. Students should provide at least 3 names of faculty ranked in order of preference by email to Dr. Ramanathan, Director of Graduate Studies.
5. Students requiring additional time to make their decisions should notify the Director of Graduate Studies by November 30 and will have until the end of the Spring Semester.
6. Faculty should not make formal commitments to Ph.D. students until the Graduate Affairs committee has reviewed and coordinated the choices provided by students. The assignments

proposed by the Graduate Affairs Committee will be reviewed and approved by the Department Chair.

4. Guidelines for Ph.D. Students with Advanced Standing

4.1. Departmental Examination:

- A. All Ph.D. students must pass a comprehensive written examination before they gain admission to candidacy for the Ph.D. degree. This examination will cover scientific areas in which the student is expected to be knowledgeable. The material for the examination is generally taken from the required departmental offerings and current literature in the area of pharmaceutical sciences.
- B. Ph.D. students should ordinarily take the preliminary examination by the end of their second year into the program. If a student has not successfully completed this examination by the end of his/her 5th semester of registration in the program (not including summers), the department may withdraw stipend support from the student. In special cases, a waiver of this rule may be granted by the Chair upon petition.
- C. The Ph.D. preliminary examination can also be utilized, in part, by B.S./M.S. or M.S. students who wish to complete their degree requirements by examination (instead of by research project). As described below, M.S. students only need to complete part of this examination.
- D. The preliminary examination will be offered no more than twice a year. The summer examination is generally offered within 3 weeks of the completion of the Spring Semester. The winter examination, if needed, will be offered during the second week of January. All students who wish to take the examination are required to submit a written request to the DGS no later than May 1 or Dec 1, for the summer and winter exam, respectively. The exact dates of the test will be set by the DGS or his/her designate. The DGS has the option to postpone the preliminary examination up to six months.
- E. The examination will be coordinated by the DGS/designate with the assistance of another graduate faculty member of the department who will be selected by the DGS. They will select questions for the examination from those submitted from the faculty of the department. The examination will contain no less than six and no more than 12 questions. No individual faculty member will have more than two questions in the examination.

F. Description of the examination:

Purpose: This examination is given to test the ability of the student to **analyze, synthesize, apply, and extend** basic knowledge in the pharmaceutical sciences. It is not the intent of this examination to test rote memorization.

Scope: For Ph.D. students, the knowledge base for this examination includes, but not limited to, the required courses of the Ph.D. curriculum. For B.S./M.S. or M.S. students, the knowledge base pertains to the chosen area(s) of focus.

Format: The examination will be divided into two sections: **core** and **elective**.

The **core** section of the exam will consist of questions in the following areas:

1. Physicochemical and Biological Principles of Pharmaceutics and Drug Delivery
2. Drug Metabolism and Transport
3. Drug Disposition and Pharmacokinetics

The **elective** section of the exam will consist of questions in the following areas:

1. Molecular Pharmaceutical Sciences (including Pharmacogenetics, Pharmacogenomics)
2. Advanced Pharmacokinetics, Pharmacodynamics, Pharmacometrics
3. Pharmaceutical Biotechnology

Questions about research techniques and methodology may be incorporated in any of the above areas. Any faculty member can submit questions in any of the indicated areas. Thus, questions may not be derived specifically from any particular course, lecture or faculty. In fact, some questions are likely to originate from the current literature or recent seminars.

- PhD students are required to answer all questions in the core section, as well as those from one of the 3 elective sections.
- B.S./M.S. or M.S. students who wish to complete their requirements by examination are required to answer questions from any 2 of the above areas, whether they are from the core or elective areas. Students must indicate their choices of scientific areas in their written petition to sit for the examination. Changes cannot be made once the petition has been submitted.

G. Papers will be given letter grades. The following numerical values are assigned for the purpose of computing averages:

A+ = 100	A = 95	A- = 92
B+ = 88	B = 85	B- = 82
C+ = 78	C = 75	C- = 72
D+ = 68	D = 65	D- = 62
F = 55		

H. A student passes the preliminary examination if he/she attains an average of 80 or above without a single grade of C- or below.

I. A student obtains a *conditional* pass if he/she attains an average of 80 or above but he/she also receives only one grade of C- or below. In such a case, the professor(s) who gives the failing grade will fail the re-examination, the case will be presented to the Graduate Affairs Committee who will decide whether remedial work and/or another examination is to be required or whether the conditional pass is to be changed to a fail.

J. A student fails the examination if s/he has not attained an average of 80 or above, or if the scores for two or more answers were graded C- or below. If a student fails the examination, s/he will be given the opportunity to take the entire examination again, no later than 30 days after s/he has been notified of the failure in the first examination. S/he must petition to the DGS to schedule a second examination within 10 days after being notified of his/her failure in the first examination. A student who fails the examination twice will be terminated from the Ph.D. program, and his/her assistantship will be removed immediately.

4.2. PHC 511: Research Proposal

After successful completion of the departmental Preliminary Examination, all graduate students must submit and orally defend a written research proposal outlining their proposed dissertation research. The deadline for submission will be specified by the DGS. Failure to meet the submission deadline will automatically result in a grade of "F" for the proposal.

The research proposal should be written in the format of an NIH grant, including the following:

- Title page. The title should not exceed 56 letters.
- Abstract (1 page double-spaced).
- Specific Aims (no longer than two pages double-spaced).
- Background and Rationale (no longer than eight pages double-spaced).
- Methodology (no longer than 15 pages double-spaced).
- Literature cited (with titles). No more than 60 references should be cited.

These page limits include tables and figures that may be reduced in size, if necessary, and inserted in the text. The total length of the research proposal (excluding references) should not exceed 30 double-spaced pages using regular-sized type (12 letters per inch). The proposal should be submitted to the student's Ph.D. committee members along with copies of the three most pertinent articles cited in the proposal. The student will defend the proposal orally before the committee. Normally, the defense will consist of a 10-15 minute presentation by the student followed by questions by the committee members.

The advisor's role in the preparation of the written document is limited to an examination of the specific aims proposed by the student. Students should not have access to any written grant proposal of the advisor relevant to the subject matter. The evaluation of the proposed specific aims should assess feasibility of the proposed aims, which should occur prior to the actual writing by the student. The advisor should not edit, review or make suggestions for document revision prior to document distribution to all committee members. Additionally, the advisor should give the thesis committee an indication of the relative contribution the advisor has made to the thesis proposal.

The thesis proposal will be graded by letter grade by the thesis committee, based on the content and scientific merit of the written proposal and the student's ability to orally defend any criticisms and answer the questions posed concerning the proposal and related areas. Each member of the thesis committee is encouraged to prepare a written evaluation of the student's document and oral defense and distribute it to the student. If the committee requires certain

evisions/additions, a written notice shall be transmitted by the chair of the thesis committee to the student detailing the revisions/additions, and the time-frame within which this work has to be submitted.

A letter grade will be given by the thesis committee, with the passing grade set at B-, although certain revisions/additions may be required, as specified earlier. A student who fails the proposal (i.e., with a grade of C+ or below) is required to re-submit the entire proposal within 60 days, and to schedule an oral defense within 30 days thereafter. The DGS/designate, in consultation with the student, will appoint two additional department faculty members to serve on the committee. These two additional committee members shall not participate in questioning the student in the defense, but shall participate in the grading process. The grade for this examination must be either a "pass" or a "fail" (i.e., no conditional passes). Failure in this second proposal defense automatically terminates the student in the Ph.D. program, and removal of assistantship.

4.3. Presentation of Departmental Seminars

- A. All graduate students are required to attend all research seminars scheduled by the Department, **whether or not they have formally registered for credit**. Students are expected to participate actively in the seminars, through questions to the speaker and through public discussions of scientific issues.
- B. A M.S. student must present a departmental seminar prior to completion of his/her program.
- C. Each Ph.D. student is expected to give at least three departmental seminars (each of approximately 45 minutes in duration) before graduation. The third seminar will be given immediately preceding the oral defense of thesis, and will represent a part of the oral defense of thesis. This third seminar can be scheduled at a time other than that reserved for departmental seminars.
- D. Students should take the primary responsibility to ensure that this policy is complied with. A student who has not met this seminar requirement will not be permitted to schedule an oral defense of his/her Ph.D. thesis.

4.4. Advisement by Thesis Committee

The student should meet with his/her full thesis committee within a month after he/she has presented a department seminar. It is recommended that no less than three meetings with the full thesis committee (including the oral defense of the research proposal) be carried out prior to the thesis defense. Such meetings should be conducted at least once a year after completion of the departmental Preliminary Examination.

4.5. Thesis Committees and Defense of Thesis

M.S. Degree: The M.S. faculty committee is comprised of at least one faculty member in addition to the student's major advisor. Students should seek an informal meeting with their M.S. committee members every six months to review progress and to discuss proposed studies and the future direction of the research project. The M.S. student must present a departmental seminar prior to completion of the program.

Ph.D. Degree: The Ph.D. faculty committee is normally chosen after the student has successfully completed the comprehensive preliminary examination. Students are encouraged to seek an informal meeting with their Ph.D. committee members once every six months to review progress and to discuss proposed studies and the future direction of the research project. It is recommended that the entire committee should meet at least once a year, preferably soon after the student has presented each departmental seminar, to discuss the student's research. The student is responsible for scheduling meetings of his/her Ph.D. committee.

Guidelines Regarding Selecting the Ph.D. Committee:

1. The committee must be chosen before the filing of the "Application to Candidacy", i.e., after you have satisfactorily completed most (if not all) of your course work, and the department's Preliminary Examination.
2. The Graduate School of the University requires a minimum of 3 UB faculty members to serve on the committee. The Chair of this committee usually is your research supervisor, and s/he must be a member of the Graduate Faculty.
3. You should work with your research supervisor to select this committee, but be prepared that your chosen faculty may decline because of other responsibilities. Members of the committee should be chosen with great care, because this committee can greatly facilitate the progress of your thesis work. Since individuals on the committee are more familiar with your work and will have more frequent interactions with you, they can provide excellent references for you when you seek employment near graduation.
4. The Department requires that the two other members of the committee (i.e., besides your supervisor) be unconnected to your research project. At least one of these two members should have a full-time tenure-track faculty appointment in the department. The Director of Graduate Studies must approve the selection of the committee.
5. Don't wait until the last minute to get this process going. You should work on this well before the beginning of the Fall semester after you pass your Preliminary Exam.

Policy for Outside Reader of the Ph.D. Thesis: The department requires the thesis to be approved by an Outsider Reader as part of the requirements for the completion of the Ph.D. program.

1. Qualification of the Outside Reader: The Outside Reader should normally hold a doctoral degree, and has demonstrated relevant expertise through peer-review publications. The Outside Reader must not hold an appointment in the UB Department of Pharmaceutical Sciences, or be connected with the thesis research project as a collaborator or investigator. The Outside Reader however may serve as an advisor to the project prior to the submission of the thesis.

2. Approval of the Outside Reader: With the advice and consent of her/his major advisor, the candidate should submit, in writing, the names of 1-3 potential Outside Readers to the Director of Graduate Studies (DGS) for approval. Such submission should be accompanied by 1-2 pages of PUBMED or MEDLINE printout of the Outside Reader(s)' recent publications pertaining to the investigative areas of the thesis. The interaction between the candidate and the proposed Outside Reader, prior to the completion of the thesis, must also be described.

3. Communications with the Outside Reader: After the DRG's approval of potential Outside Reader(s), either the candidate, or her/his advisor, should contact these colleagues (perhaps serially) to determine their availability. It is acceptable to invite more than one approved Outside Readers, and the acceptance of the thesis by any one of these colleagues would suffice. The Outside Reader Response Form (see Appendix A) should be sent by the candidate/major advisor to the approved Outside Reader(s) along with the thesis.

4. Outside Reader and Oral Defense of Thesis: Except under extra-ordinary circumstances, the oral defense should be scheduled at least 3 weeks after the distribution of the thesis to the Outside Reader and to the departmental committee. Ordinarily, the oral defense should be held only after receipt of the Response Form which indicates acceptance from the Outside Reader. However, if at least 3 weeks have elapsed after the distribution of the thesis to the Outside Reader, and a Response Form from the Outside Reader has not been received, an oral defense can go forward if all members of the PhD thesis committee have no objection. In this case, the DRG will withhold final signature of the M-form until a satisfactory Response Form is received. **Ph.D. thesis defenses** will be preceded by a one-hour departmental seminar open to the academic community and the public. The Ph.D. defense should be announced in the department. Departmental policy requires that Ph.D. students must remain in the department on a full-time basis until the thesis has been submitted to the thesis committee.

5. Policy regarding eligibility for participation in the School's May Commencement Exercises.

Approval must be obtained from the Director of Graduate Studies, no later than 5 p.m., February 20 of the same year. "UB committee" is defined as composing of all UB faculty members who are serving as members of the student's thesis/project advisory committee, i.e., excluding the Outside Reader.

Ph.D. Students:

1. Student must have completed >95% of all laboratory studies
2. Student must have submitted to her/his UB committee
 - a. A completed table of contents of planned thesis chapters
 - b. At least 75% of the thesis chapters, in complete draft form

3. Student must obtain signatures from his/her faculty advisory committee confirming completion of the above work. This signed statement is submitted to the Director of Graduate Studies for approval.

M.S. and B.S./M.S. Students:

1. Student must have completed >75% all laboratory studies
2. Student must have submitted to the UB committee
 - a. A draft abstract of the project report
 - b. An outline of the project report including the major conclusions of the project
3. Student must obtain signatures from his/her faculty advisory committee confirming completion of the above work. This signed statement is submitted to the Director of Graduate Studies for approval.

If the student has not made sufficient progress toward graduation during the period before Commencement, the department may revoke this permission upon unanimous vote of the student's UB committee, and the approval of the Department Chairman.

Appendix A
Department of Pharmaceutical Sciences
School of Pharmacy and Pharmaceutical Sciences, University at Buffalo
Response Form for Outside Reader of Ph.D. Thesis

Section 1: To be completed by candidate:

Outside Reader's Name _____

Ph.D. Candidate's Name _____

Major advisor's Name: _____

Dissertation Title: _____

Suggested Due Date for Return of Response Form: _____

Section 2: To be completed by Outside Reader:

Instructions for Outside Reader

1. When you have completed your review of the candidate's dissertation, please make your recommendation on this sheet according to one of the prescribed choices listed below:
2. On P.2, fill in the Comments for Candidate and Committee section. Please include your analysis of the dissertation and whether it constitutes a significant body of work in relation to the field and indicate what changes, if any, should be considered.
3. Please forward the Response Form indicating your recommendation and the separate comments for Candidate and Committee sheet to: Director of Graduate Studies, Department of Pharmaceutical Sciences, University at Buffalo, 457 Cooke Hall, Buffalo, NY 14260-1200, or FAX to (716) 645-3693.

Recommendation of the Outside Reader:

- _____ 1. Accept dissertation in present form.
_____ 2. Accept; consider minor revisions detailed in the accompanying Comments.
_____ 3. Accept; but only after the revisions indicated in the Comments have been made.
_____ 4. Unacceptable for reasons indicated in the accompanying Comments.

Signature of Outside Reader: _____

Date: _____

Current Position and Affiliation: _____

**Department of Pharmaceutical Sciences
University at Buffalo**

Comments for the Candidate and Dissertation Committee

Please include here your comments for the candidate and dissertation committee. Attach additional pages if necessary. We greatly appreciate your help in assuring the quality of our Ph.D. program. Thank you.