

Idaho State University

College of Pharmacy

Department of Pharmaceutical Sciences

**Guidelines for the Graduate Program in
Pharmaceutical Sciences**

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Mission Statement

The Department of Pharmaceutical Sciences, is a multidisciplinary unit in the College of Pharmacy at Idaho State University and is the sole state program for post-graduate education in a variety of areas in pharmaceutical sciences. The mission of the Department of Pharmaceutical Sciences graduate program is to train and prepare students to succeed in their chosen career path.

Goals

Upon completion of training, graduates will be:

1. rigorously trained in the department focus areas;
2. effective communicators of their knowledge and scientific findings;
3. capable of using multidisciplinary approaches to problem-solving;
4. competent practitioners of the scientific method; and
5. adaptable and successful in achieving their long range goals.

Introduction

The Department of Pharmaceutical Sciences in the College of Pharmacy has 12 full-time faculty members who generate research support from diverse sources such as the National Institutes of Health, National Science Foundation, Department of Energy and private industry. Affiliate faculty are located at the Boise Veterans Affairs Medical Center and Boise State University. The department occupies research space in Leonard Hall.

Modern university research instrumentation includes: phosphorimaging and fluorescence imaging, DSC, HPLC, GC, FTIR, NMR, and light and electron microscopy. The Department also has instrumentation for and expertise in flow cytometry, ELISA, electrophoresis, radioimmunoassays, small animal surgery, cell culture, cell fractionation, development and characterization of submicron particulate systems, metabolism and molecular biology. Research expertise and interests among the

faculty cover Pharmaceutics (Drug delivery, Pharmacokinetics, Preformulation and Formulation development), Pharmacology (Neuro-, Immuno-, Endocrine, Cancer, Behavioral, Cardiovascular, and Toxicology), and Medicinal Chemistry (Synthetic Medicinal Chemistry and Biopharmaceutical Analysis).

These guidelines are provided to assist graduate students in accomplishing their academic and career objectives and to help them comply with the expectations for students pursuing a graduate degree. The department graduate faculty are available to assist you in interpreting these guidelines. These guidelines constitute a supplement to the Idaho State University Graduate Catalog and provide a statement of the Departmental expectations, resources and procedures. It is the student's responsibility to use these resources and to comply with the requirements and expectations detailed in these guidelines in addition to those covered by the ISU Graduate School Catalog. Failure to comply with the requirements and expectations can result in a requirement for remediation or dismissal from the program.

I. Admissions, General Requirements and General Information

A. Prerequisites.

Candidates enrolling in the M.S. or Ph.D. degree programs must meet all requirements for admission to the Graduate School and have an adequate background in the biological and physical sciences. Minimum admission coursework requirements include two semesters of biological science courses and basic chemistry, calculus, and two semesters of organic chemistry with laboratory. Those students admitted without an adequate course background will be expected to make up deficiencies in addition to coursework required for their graduate program.

B. Admission to the Pharmaceutical Sciences Graduate Program.

1. Admission is accomplished according to the regulations of the Idaho State University Graduate School. All applications must be submitted to the Graduate School for processing.
2. The graduate faculty members of the Department of Pharmaceutical Sciences review applications each semester. Their recommendation is forwarded to the Chair of the Department of Pharmaceutical Sciences for approval and then to the Dean of the Graduate School, who has the final authority on admissions.
3. Applications will be accepted for students seeking the M.S. or Ph.D. degree, a joint Pharm.D./M.S. or PharmD./Ph.D. degree, or conditional status under certain conditions such as making up undergraduate deficiencies.
4. Minimum credentials and criteria will be used by the Department of Pharmaceutical Sciences and the Graduate School in recommending and approving admission into the graduate program. The credentials and criteria include:
 - a. Letters of recommendation from a minimum of three references who are familiar with the applicant's academic background.
 - b. Professional degree in pharmacy or a baccalaureate degree in a related field with a Grade Point Average (GPA) of at least 3.00 or its equivalent in the final two years. Applicants that do not meet the above GPA requirement may be accepted as a conditional student.
 - c. Official report of Graduate Record Examination Scores must be submitted (See ISU Graduate Catalog for minimum requirements).
 - d. All students must have a demonstrated proficiency in the English language. Students from countries where English is not the first language must demonstrate proficiency in the English language on the TOEFL exam (See ISU Graduate Catalog for minimum requirements).

e. Other factors, such as research publications, evidence of scholarly work, strong recommendations by department graduate faculty or applicant's career goals may allow the Department to recommend conditional acceptance in the event that minimum qualifications have not been met.

5. Meeting minimum admission requirements does not ensure admission to the Department of Pharmaceutical Sciences Graduate Program.

C. Early Entry into the Graduate Program for Pharmacy Students.

Idaho State University's College of Pharmacy has developed a joint-degree program for qualified students. This program combines the existing Pharm.D. with either the M.S. degree or Ph.D. degree currently offered in the Department of Pharmaceutical Sciences. Students accepted into this joint-degree program must maintain good standing in the Pharm.D. program. They can expect to receive a Pharm.D. degree and be eligible to be licensed as a pharmacist after completing the four-year professional degree program. The remaining portion of the joint-degree program may require a minimum of one additional year for completion of the requirements for an M.S. degree or three additional years for completion of the requirements for a Ph.D. degree. The total time for completion of the joint-degree program will be dependent on the individual student's background and progress.

Well-qualified and highly motivated professional students currently enrolled in the Pharm.D. program may apply for early admission to a graduate program administered by the College. In order for a student to be eligible for early admission to a graduate program in the Department of Pharmaceutical Sciences, the Registrar must certify completion of at least 136 academic credits or a B.S. degree to the Graduate Dean. Such certification must include all university general education requirements, and meet all graduate student admission requirements as outlined above. Joint-degree students can enroll for no more than 19 credit hours per semester, of which a maximum of 4 credits may be from graduate courses.

D. Residency and Enrollment Requirements.

1. Residency

All graduate students must satisfy the residency requirements of the ISU Graduate School. All credits that are to be applied to an advanced degree must be earned as resident credits or accepted for transfer as described in the Idaho State University Graduate Catalog. Documentation of meeting residency requirements will be included on the Final Program of Study submitted to the graduate school upon admission to candidacy.

2. Maximum Enrollment by Graduate Assistants

Graduate students who are graduate assistants must enroll for a minimum of 9 graduate credit hours and no more than 12 graduate credit hours per semester.

3. Credits Required for Degree Programs

All students must complete department requirements and coursework approved by the student's Graduate Program Committee.

M.S. Degree: The department requirement is a minimum of 30 credits including at least 6 credit hours in Thesis Research (PSCI 650).

Ph.D. Degree: The department requirement is a minimum of 72 credits including a minimum of 20 credit hours combined from Dissertation Research, PSCI 698 (18 credits) and Dissertation, PSCI 699 (minimum of 1 credit) completed following admission to candidacy.

For all graduate students, at least one half of the total graduate credit hours must be at the 500 or 600 level.

4. As required by Graduate School policy (see Graduate Catalog), all graduate students must register for a minimum of one credit each semester to be considered enrolled in the graduate program. This includes the summer semester.

E. Annual Progress Report.

Each graduate student in the program is required to submit an annual written progress report to their major advisor and committee for approval, and to the Graduate Program Coordinator no later than May 1 of each year. This report will be used by the department faculty as part of its annual graduate student review process. The report should include a summary of coursework completed during the previous 12 months, accomplishments related to program advancement (e.g., thesis proposal, qualifying examination), research projects in which the student has participated (including rotations), papers written, attendance/presentations at scientific meetings, honors, awards (e.g., grants, travel awards), plans/goals for the coming year, and any other information related to professional development. The result of the review will be either a recommendation for continuation, remediation, or dismissal.

F. Seminar Requirements.

Throughout the program every full time graduate student is required to enroll in Graduate Seminar (PSCI 601) in both the fall and spring semesters. In addition, graduate students are expected to attend all department seminars. Part time students are required to enroll in Graduate Seminar for at least one semester.

G. Waiver of Course Requirements.

1. According to the Idaho State University Graduate Catalog, petition forms should not be used for substitutions of courses within degree requirements or waivers of degree requirements. In general, there will be no waivers or substitutions of required courses. For special circumstances, requests for waiver or substitution of a required course must be submitted to the department chair, and are approved only by a majority vote of the departmental graduate faculty.
2. When deemed necessary by the instructor responsible for that course, a special examination may be offered to meet these requirements. The examination will be scheduled with the consent of the Advisor and the Chair of the Department.

H. Change of Degree Program.

1. Once admitted to a particular degree or discipline program, a student cannot change to another degree or discipline program without a complete review of his/her application by the Department Graduate Faculty and Chair of the Department.
2. In the event that a conflict between a student and his/her major faculty advisor arises, either party can bring the issue to the Chair of the Department for review. If a change in the major advisor is deemed necessary, a new major advisor will be selected and adjustments in the Graduate Program Committee will be made without a change in status of the graduate student (See ISU Graduate Catalog for procedure).

I. Financial Support for Graduate Students.

1. Financial support is dependent upon availability of funds. Each spring all eligible students, including newly admitted students, will be considered for financial support for the subsequent academic year. Joint-degree students are not eligible for graduate assistantships until they have completed the Pharm.D. program, but may be provided some financial support if other funds are available.
2. In no instance will a firm financial commitment be made to a student until all department admission requirements have been met and the student has been officially admitted by the ISU Graduate School.
3. Financial support, regardless of source, is contingent upon satisfactory progress toward research and academic goals as determined by the student's annual progress evaluation.

J. Responsibilities and Roles of the Governing Bodies of Graduate Education.

1. Major Advisor

The major advisor is chosen by mutual interest and agreement between the student and faculty member, and communicated to the Chair of the Department of Pharmaceutical Sciences. The major

advisor advises the graduate student in the selection of courses, directs and supports the student's research, serves as an advocate in all academic matters and works with the department faculty on the student's annual progress review. The major advisor, who must have their primary appointment in the Department of Pharmaceutical Sciences, should be selected within the first 12 months following entry into the Graduate Program. The Graduate Program Coordinator will work closely with the student and help ensure academic progress until a major advisor is chosen.

2. Graduate Program Committee

The Graduate Program Committee's purpose is to advise the student in both research and academic matters, regularly evaluate the student's progress, administer candidacy examinations, evaluate the student's research, and critically review the thesis or dissertation, and administers the final thesis/dissertation defense examination.

- a. The student's Graduate Program Committee is chaired by the major advisor and selected by the student in consultation with the major advisor and approved by the Chair of the Department of Pharmaceutical Sciences. The Graduate Program Committee for the M.S. degree consists of the major advisor and at least two other faculty members, one of whom, the Graduate Faculty Representative (GFR), must be from outside the college and may be appointed by the Graduate School at the time of the defense. The Graduate Program Committee for the Ph.D. degree must consist of the major advisor and at least four other faculty members. One of the members must be from outside the college. One of these members will be GFR, who will be appointed by the Graduate School at the time of the defense if not previously designated. The GFR may also act as the outside committee member.
- b. Additional members may be added to the Graduate Program Committee, however, the majority of the Graduate Program Committee must be graduate faculty members in the Department of

Pharmaceutical Sciences and there must be an odd number of members at the time of thesis/dissertation defense.

The Graduate Program Committee should meet with the student as soon as feasible to discuss and approve the proposed program of study. The student or a Graduate Program Committee member may request a change in committee membership, however, such a change must meet approval of all concerned. In the event of a conflict of opinion, the Chair of the Department of Pharmaceutical Sciences will arbitrate the change.

3. Graduate Program Coordinator

The Graduate Program coordinator is a member of the graduate faculty appointed by the Department Chair. The Coordinator shall usually serve a term of 3 years, at the discretion of the Chair. The Graduate Program Coordinator serves as the temporary advisor to incoming graduate students until a major advisor has been selected. The Coordinator also serves as the advisor to the graduate student organization. The Coordinator will act as an advocate for graduate students at all levels within the University and address issues common to all graduate students and/or related to the graduate program (see Appendix 1).

4. Graduate Faculty

Graduate faculty members of the department recommend acceptance into the graduate program in pharmaceutical sciences, interpret departmental policies and guidelines, and recommend changes in the guidelines. Graduate faculty members will also annually review each graduate student in the department to approve continuation in the program, recommend remediation, or recommend dismissal from the program. Changes to the Graduate Program Guidelines will be proposed, discussed and voted on by faculty members of the Department of Pharmaceutical Sciences and accepted by a majority vote.

5. Chair of the Department of Pharmaceutical Sciences

The Chair of the Department of Pharmaceutical Sciences, as director of the Department of Pharmaceutical Sciences Graduate Program, approves recommendations for admission, endorses the results of candidacy examinations and approves graduate student plans of study (see Appendix 1).

6. Graduate Education and Faculty Affairs Research Committee (GEFRAC)

The GEFRAC develops policy and makes recommendations as required in all matters relating to graduate education and graduate degree programs in the College of Pharmacy.

7. Dean of the College of Pharmacy

The Dean of the College of Pharmacy administers faculty responsibilities. The Dean also administers college scholarships and fellowships.

8. Dean of the Graduate School

The Dean of the Graduate School administers and approves all official graduate work, policy, and standards, unifies administrative procedures relevant to graduate study, including admissions policies, graduate programs, university-wide scholarships and fellowships and granting of degrees.

K. Academic Dishonesty.

As stated in the Graduate Catalogue “Academic dishonesty includes, but is not limited to, cheating and plagiarism. Academic dishonesty at the graduate level is considered a serious offense and may result in dismissal from a graduate program.” It is the student’s responsibility to maintain high scientific ethics and to refrain from any academic dishonesty. It is the graduate faculty member’s responsibility to fully explain this policy to any student requesting clarification. Cheating is generally used in terms of examinations and means providing answers from sources other than your own thinking or knowledge. Plagiarism involves presentation of written documents (such as a research paper, manuscript, thesis or dissertation) without clear and definitive identification of writing that is not your own words. Falsification of data means creation of data that has not been generated by experiments.

II. M.S. Degree Program Requirements

A. Program of Study.

1. The courses to be completed and applied toward the minimum credits required for the Student's program must be listed on Form PSCI-1. A tentative program of study should be formulated within the student's first 12 months in the program, approved by the student's Graduate Program Committee, and forwarded to the Chair of the Department.
2. The program of study (Form PSCI-1) must include a minimum of six credits of thesis research (PSCI 650).
3. Minimum graduate credit requirements (see Section I.D.3) may not necessarily fulfill departmental degree requirements.
4. A final program of study, approved by the Graduate Program Committee, must be submitted to the Idaho State University Graduate School no later than the semester immediately preceding the semester the student intends to graduate (See ISU Graduate Catalog).

B. Research Proposal.

1. The research proposal reviews and summarizes the literature in the proposed research area. It identifies rationale, objectives, and design of the proposed research project. The research proposal must be submitted to the student's Graduate Program Committee for recommendations and approval no later than the third semester of enrollment for full time M.S. degree students. The initial research proposal should be discussed with the committee in advance and will provide a framework from which the student's thesis research will evolve. A copy of the proposal will be maintained by the major advisor.

C. Coursework.

1. Required Courses

A group of required courses have been chosen to ensure that M.S. degree graduates will be capable of excelling within a multidisciplinary context. Students are expected to attain at least a B in required courses.

The required courses are as follows:

PSCI 601: Graduate Seminar (1 cr/semester, minimum of 2 cr. required).

PSCI 607: Research Foundations in Pharmaceutical Sciences (3 cr).

PSCI 603: Scientific Writing (3 cr).

PSCI 602: Research Design and Analysis for the Pharmaceutical Sciences (3 cr).

PSCI 650: Thesis Research (6 cr. minimum).

Other Pharmaceutical Sciences Courses (6 cr).

2. Additional courses

Courses pertinent to the student's area of study will be selected with the recommendation and approval of the committee. Courses considered as deficiencies will not count toward the total M.S. credits and are listed separately on Form PSCI-1. A grade below B is unsatisfactory and will not count towards fulfilling the degree requirements.

3. Withdrawal from the program

Upon recommendation of the student's major advisor, Graduate Program Committee, or departmental graduate faculty review, and with the approval of the Chair of the Department of Pharmaceutical Sciences, a student may be required to withdraw from the program at any time for failure to maintain satisfactory progress toward the degree.

D. Thesis Requirement.

The process of writing a thesis that is accepted by the Graduate School usually includes the following phases:

1. The student develops a complete thesis, in either the CBE or ACS style. The thesis must adhere to the ISU Graduate School guidelines and requirements. The student can expect to go through several drafts before it is acceptable to the major advisor, and should allow two or three weeks for review by the major advisor per submission.
2. Once the major advisor approves the thesis (Form PSCI-8), a printed copy will be circulated to the Graduate Program Committee members. The period for initial review should not exceed four weeks. However, if a faculty member requires additional time, that member should inform both the major advisor and the student in writing. If any Graduate Program Committee member requests revision with subsequent review, a revised copy, along with its respective review sheet will be returned to the Committee member for an additional review period of one week.
3. Prior to submission of the thesis to the Graduate School, each member of the student's Graduate Program Committee must sign the signature page, signifying approval of the thesis.

E. Thesis Defense ("Final Examination" in the ISU Graduate Catalog).

1. Nature and Content of Thesis Defense

Each candidate for the Master's Degree, after completion of the thesis and at least three weeks before the degree is to be awarded, must pass a final oral thesis defense administered by the student's Graduate Program Committee. The defense will test the general knowledge of the candidate with particular reference to the major field of study, any minor subjects, and the student's thesis research.

2. The date and place for the thesis defense is scheduled by agreement of the student and the major advisor in consultation with the Graduate Program Committee members and the Graduate School. The examination is advertised to all department faculty members at least seven days before it takes place, with a copy of the advertisement being sent to the Graduate School.

3. The student is required to give a final seminar of his/her research (approximately 45-50 minutes) at the thesis defense.
4. Results of the Thesis Defense
 - a. Pass - The student's performance was satisfactory as determined by a 2/3 majority vote of the Committee. A vote to pass a student based upon his/her performance at the thesis defense does not imply approval of the thesis. An independent approval page exists for the thesis.
 - b. Failure - A student who fails a final examination may be allowed a second opportunity within the following semester upon recommendation of the Graduate Program Committee. Failure of the second thesis defense will result in dismissal from the Graduate School.

III. Ph.D. Degree Program Requirements

A. Program of Study.

1. Form PSCI-1 is a listing of courses to be completed and applied toward the minimum credits required for the student's program. A tentative program of study should be formulated within the first 12 months in the program, approved by the student's Graduate Program Committee, and forwarded to the Chair of the Department of Pharmaceutical Sciences.
2. The program of study (Form PSCI-1) must include a minimum of 20 credits of Dissertation Research (PSCI 698, minimum of 18) and Dissertation (PSCI 699, minimum of 1) after admission to candidacy.
3. Minimum graduate credit requirements (See Section I.D. 3) may not necessarily fulfill departmental degree requirements.
4. A final program of study, approved by the Graduate Program Committee, must be submitted to the Graduate School the semester immediately preceding the semester the student intends to graduate (See ISU Graduate Catalog).

B. Research Proposal.

The research proposal (Form PSCI-2) reviews and summarizes the literature in the proposed research area. It identifies rationale, objectives, and design of the proposed research project.

A tentative research proposal must be submitted to the student's Graduate Program Committee for recommendations and approval at least two weeks prior to the comprehensive oral defense of the proposal. The initial plans for the research and format for the proposal should be discussed with the committee in advance and will provide a framework from which the student's dissertation research will evolve. A copy of the proposal (including Form PSCI-2) will be kept by the major advisor.

C. Coursework.

1. A group of minimum required courses have been chosen to ensure that the Ph.D. degree graduate will be capable of excelling within a multidisciplinary context. Students are expected to obtain at least a B in all required courses. The required courses are as follows:

PSCI 601: Graduate Seminar (1 cr./semester, 4 cr. count towards degree).

PSCI 603: Scientific Writing (3 cr).

PSCI 606: Selected Techniques in the Laboratory (3 cr).

PSCI 607: Research Foundations in the Pharmaceutical Sciences (3 cr).

PSCI 602: Research Design and Analysis for the Pharmaceutical Sciences (3 cr).

PSCI 698: Dissertation Research (variable credit, with a minimum of 18-19 cr. after advancing to candidacy).

PSCI 699: Dissertation (1 cr. minimum).

Other Pharmaceutical Sciences courses (9 cr. 500-600 level coursework).

2. Additional courses

Courses pertinent to the student's area of study may be identified and required for any student. Courses considered to rectify deficiencies are not included in the calculation and are listed separately on Form PSCI-1. A grade below B is unsatisfactory and will not count toward fulfilling the minimum requirements for the degree.

3. Withdrawal from the program

Upon recommendation of the student's major advisor/Graduate Program Committee and with approval of the Chair of the Department of Pharmaceutical Sciences, a student may be required to withdraw from the program at any time for failure to maintain satisfactory progress toward the degree.

D. Teaching Requirements for Ph.D. Students.

A teaching experience, beyond that required of a teaching assistant, is designed to assist the student in attaining the poise and organizational skills expected of an individual holding the Ph.D. Degree and will be provided through a requirement that each student actively participate in teaching. This will include at least four contact hours to students of different academic levels. The student's Graduate Program Committee, in conjunction with the course instructor and approval by the department chair, will decide how the student will best satisfy this obligation (Form PSCI-5).

E. Publication Requirement.

Each Ph.D. student is required to prepare one draft manuscript for submission to the Graduate Program Committee before his/her final examination (Form PSCI-6). Ph.D. students are recommended to write the data reported in the dissertation in manuscript format and are strongly encouraged to submit the resulting manuscripts to appropriate journals for publication before leaving the Department of Pharmaceutical Sciences.

F. Comprehensive Examination for Ph.D. Candidacy.

1. Nature and Content of Candidacy Examination

- a. To advance to candidacy each Ph.D. student must successfully complete a comprehensive examination composed of a written examination and an oral defense of a research proposal. The comprehensive examination should be given after all requirements are completed (generally not less than 48 credit hours) and upon the recommendation of the student's Graduate Program Committee. The written candidacy examination in Pharmaceutical Sciences must be taken by the end of the third year of study exclusive of time spent solely on remedial coursework. Candidacy status must be reached a minimum of least two semesters prior to the defense of the dissertation.
- b. Advancement to candidacy requires successful completion of written examination, acceptance by the Graduate Program Committee of the written research proposal submitted at least two weeks prior to the oral examination, and successful completion of the oral defense of the proposal.
- c. The results of the comprehensive examination for candidacy will be reported to the Graduate School. The results will also be appropriately filed in the student's departmental records and reported on form PSCI-7.

2. Written Examination

- a. All faculty in the Department of Pharmaceutical Sciences must receive an invitation to participate. An Examination Announcement will be sent out by the Major Advisor. This announcement must be made at least one week prior to the examination.
- b. Each Graduate Program Committee member shall, and the department graduate faculty may, submit written examination questions to the major advisor by the deadline indicated in the Examination Announcement. Any pertinent information, such as a time limit or open or closed book, must be transmitted to the major advisor along with the questions. The major advisor shall compile the written examinations and submit them to the Chair of the Department of Pharmaceutical Sciences for approval prior to administering the examination. The entire examination should not exceed a total of 24 hours

over three consecutive days. The questions for each Graduate Program Committee member will be limited to four hours and the remaining time designated for the additional (non-committee) questions.

c. A 3/4 or 4/5 majority of passing votes, depending on committee size, 4 or 5 members, respectively, must be achieved for satisfactory completion of the written examination.

3. Oral Defense of the Research Proposal

a. No later than the semester following satisfactory completion of the written examination, the committee will administer the oral defense of the student's research proposal.

b. The oral examination shall include, but is not limited to, the defense of the student's written research proposal (prepared in the style of the NIH or NSF submission form) covering the research plan and supported by sufficient preliminary data.

c. A majority of passing votes (3 of 4 or 4 of 5 members) from the Graduate Program Committee must be achieved for satisfactory completion of the oral defense.

4. Failure of the Comprehensive Examination

a. First Failure to Advance to Candidacy

The first failure of the comprehensive examination will result in one of the following options at the discretion of the student's Graduate Program Committee:

i. Within the following semester, adequately complete that portion of the comprehensive examination that was not passed. (Note: Satisfactory completion of the written examination is required before proceeding to the oral examination)

ii. Enter terminal Master's program (i.e. not allowed to advance in the Ph.D. program).

iii. Exit the program (a majority vote of Graduate Program Committee is required).

b. Second Failure to Advance to Candidacy

The second failure of the comprehensive examination will result in one of the following options at the discretion of the Graduate Program Committee:

- i. Enter a terminal Master's program.
- ii. Exit the program (a majority vote of Graduate Program Committee is required).

G. Dissertation Requirements.

The process of writing a dissertation that is ultimately accepted by the Graduate School usually includes the following phases:

1. The student develops a complete dissertation, in the CBE or ACS style. The student can expect to go through several drafts before it is accepted and should allow two or three weeks for review by the major advisor per submission.
2. Once the major advisor approves a draft, a review sheet (Form PSCI-8) bearing the major advisor's signature and a printed copy of the dissertation will be circulated to the Graduate Program Committee members. The period for initial review should not exceed four weeks. However, if a faculty member requires additional time, the member should inform both the major advisor and the student in writing. If any Graduate Program Committee member requests revision with subsequent review, a revised copy, along with its respective review sheet will be returned to the Graduate Program Committee member for an additional review period of one week.
3. Prior to submission of the final draft of the dissertation to the Graduate School, each member of the student's Graduate Program Committee must sign the signature page, indicating their approval of the dissertation.

H. Dissertation Defense for Ph.D. Degree ("Final Examination" in ISU Graduate Catalog).

1. Nature and Content of the Dissertation Defense

The final examination for the degree will consist of a defense of the student's dissertation. In addition, questions may be asked on any subject areas recognized as deficient in the Candidacy Examination.

2. The date and place for the dissertation defense is scheduled by agreement of the student and the major advisor in consultation with the Graduate Program Committee members and the Graduate

School. The defense is advertised to all departmental faculty at least seven days before the examination, with a copy of the advertisement being sent to the Graduate School.

3. The student should be prepared to give a final seminar of his/her research (approximately 45-50 minutes) at the dissertation defense.

4. Results of the Dissertation Defense

a. Pass - The student's performance was satisfactory as determined by a 4/5 majority vote of the Graduate Program Committee. A vote to pass a student based upon his/her performance at the dissertation defense does not imply approval of the dissertation. An independent approval page exists for the dissertation.

b. Failure - A student who fails a dissertation defense may be allowed a second opportunity in a subsequent semester only with the recommendation of the Graduate Program Committee. Failure of the second final exam will result in dismissal from the Graduate School.

IV. Joint Pharm.D./M.S. Degree Program Requirements

A. Program of Study See M.S. Section II A.

B. Research Proposal See M.S. Section II B.

C. Joint Pharm.D./M.S. Degree Required Curriculum.

1. Students must meet all the requirements for the Pharm.D. program.

2. Students must meet all the requirements for the M.S./Ph.D. degree, see Section II.C.

3. A joint-degree student can not take more than 19 credits/semester while in the Pharm.D. program, of which no more than 4 credits can be graduate credits. After completing the Pharm.D. requirements, the joint-degree student reverts to the Graduate School requirements, not to exceed 16 credits/semester.

D. Thesis Requirement (See M.S. Section II D).

E. Thesis Defense for M.S. Degree (See M.S. Section II E).

V. Joint Pharm.D./Ph.D. Degree Program Requirements

A. Program of Study (See Ph.D. Section III A).

B. Research Proposal (See Ph.D. Section III B).

C. Joint Pharm.D./Ph.D. Degree Required Curriculum.

1. Students must meet all the requirements for the Pharm.D. program.
2. Students must meet all the requirements for the Ph.D. degree, see the appropriate section.
3. A joint-degree student can not take more than 19 credits/semester while in the Pharm.D. program, of which no more than 4 credits can be graduate credits. After completing the Pharm.D. requirements the joint-degree student reverts to graduate requirements not to exceed 16 credits/semester.

D. Teaching Requirements for Pharm.D./Ph.D. Students (See Ph.D. Section III D).

E. Publication Requirement (See Ph.D. Section III E).

F. Comprehensive Examination for Ph.D. Candidacy (See Ph.D. Section III F).

G. Dissertation Requirements (See Ph.D. Section III G).

H. Dissertation Defense for Ph.D. Degree (See Ph.D. Section III H).

VI. Part-Time Graduate Student Requirements

Students may be admitted to the graduate program in Pharmaceutical Sciences upon meeting all requirements for admission and with recommendation for acceptance by the department. Part-time graduate students will be required to take 1 semester of Graduate Seminar per year and will be expected to make progress towards their degree. Should any student fail to make progress within any given year, either by completing at least one course or conducting a minimal level of research, they will be moved to inactive status.

Form PSCI-1

GRADUATE PROGRAM OF STUDY

IDAHO STATE UNIVERSITY -- GRADUATE SCHOOL
 COLLEGE OF PHARMACY
 DEPARTMENT OF PHARMACEUTICAL SCIENCES

FOR: Doctor of Philosophy	Degree in
Master of Science	Degree in
Graduate Catalog Date Used for Criteria	

Planned Program Date Submitted	Final Program Date Submitted
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Name:

Student No.:

Mailing Address:

Date of Admission to Graduate School:

GPA Last two years under
graduate:

Approved Program: Include Thesis or Paper, Elective (Additional or Selective)s (if any)

Dept/No.	Title	Crs.	Dept/No.	Title	Crs
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Student Date

Committee Members

Advisor Date

Department Chair Date

College Dean Date

Graduate Dean Date

Graduate Faculty Representative

Form PSCI-2

GRADUATE RESEARCH PROPOSAL

Date:

Graduate Student:

Degree Program (M.S. or Ph.D.):

Tentative Title of Proposed Research:

Estimated date of completion:

Estimated total cost:

Proposed funding source(s):

Summary (complete proposal and literature review attached):

Major Advisor:

_____	_____	_____
Typed/printed name	Signature	Date

Advisory Committee:

Typed/printed name	Signature	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Form PSCI-3

ANNUAL GRADUATE STUDENT PROGRESS REPORT (copies to be submitted to the major advisor, program committee members, and graduate program coordinator by May 1 of each year)

Date:

Graduate Student:

Degree Program (M.S. or Ph.D.):

Date of initial enrollment:

Completed forms in Student's Departmental File:

Graduate School forms (copies):

Previous Forms (dates):

Other Dept. forms:

Forms (requirements) yet to be completed (met):

Graduate School forms:

Dept. forms:

Courses on Plan of Study (Form PSCI-1) yet to be completed:

Courses completed during the previous 12 months:

Accomplishments related to program advancement (e.g., thesis proposal, qualifying exam):

Research projects completed (including rotations):

Papers written:

Attendance and presentations at scientific meetings:

Honors and awards:

Plans and goals for the coming year:

Summary of thesis/dissertation research progress to date (student's full progress report attached):

Page 2 of 2

Date:

Graduate Student:

Progress Evaluation: Satisfactory Unsatisfactory

Recommendations:

Major Advisor:

_____	_____	_____
Typed/printed name	Signature	Date

Advisory Committee:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Form PSCI-4

Ph.D. STUDENT TEACHING EXPERIENCE

Date:

Graduate Student:

Course taught/assisted:

Semester and year:

Specific responsibilities of the student teacher/assistant:

Performance evaluation: Satisfactory Unsatisfactory

Comments:

Recommendation:

Supervising Instructor:

Typed/printed name

Signature

Date

Form PSCI-5

COMPREHENSIVE EXAMINATION FOR ADVANCEMENT TO PH.D. CANDIDACY

Graduate Student:

Ph.D. Degree Program Emphasis:

Oral Defense

Date:

Defense Outcome: Satisfactory Unsatisfactory

Recommendations:

Major Advisor:

Typed/printed name Signature Date

Advisory Committee:

Typed/printed name Signature Date

Form PSCI-6

THESIS/DISSERTATION REVIEW

Date:

Graduate Student:

Thesis/dissertation title:

Anticipated graduation date:

Last possible defense date:

The accompanying draft of the above thesis/dissertation meets my approval and is submitted for your review. Please return the manuscript and this form with your recommendations by the following date:

Major Advisor:

Typed/printed name

Signature

Date

Reviewer's evaluation:

Additional research is needed.

Manuscript: needing major revision.

Manuscript: needing minor revision.

Manuscript: acceptable in present form.

Manuscript: excellent in present form.

I wish to review the manuscript again after revision.

Reviewer's comments:

See also attached additional comments.

See also comments on manuscript.

Reviewer:

Typed/printed name

Signature

Date

Appendix 1

Roles and Responsibilities of the Graduate Program Coordinator and the Department of Pharmaceutical Sciences Chair

1. Graduate Program Coordinator

The Graduate Program Coordinator (GPC) is appointed by the Chair of the Department of Pharmaceutical Sciences with the advice of the Graduate Faculty of the Department. Usually, the GPC serves a 3-year term at the discretion of the Chair.

The overall role of the GPR is to assist the Chair in the management and administration of the graduate program in pharmaceutical sciences. Specific responsibilities are as follows:

- a. Serve as advisor to entering students prior to their choosing a permanent faculty advisor.
- b. Chair the review of applications for admission to the graduate program.
- c. Organize the orientation for new graduate students each fall, usually the week prior to the beginning of classes.
- d. Maintain and update the graduate program binder, and provide one to each student and faculty.
- e. Serve as advisor to the graduate student organization.
- f. Chair the yearly review of graduate student progress held at the end of the spring semester.

2. Chair of the Department of Pharmaceutical Sciences

The Chair of the Department of Pharmaceutical Sciences is the director of the graduate program. As director, the chair oversees all aspects of the graduate program. The chair approves recommendations for admission to the program and recommendations to not offer admission to the program including corresponding with applicants concerning their application. The chair also approves selection of the student's major advisor and graduate program committee, awards financial support in the form of Graduate Assistantships or Research Assistantships, approves the plan to meet

the student teaching requirement, approves the comprehensive examination, and approves requests for time off from GA or RA assignments.

Appendix 2

General expectations and responsibilities for graduate students, and job description for Graduate Assistants or Research Assistants

All graduate students are expected to be conscientious in completing classroom and laboratory assignments. Scientific careers, in all venues, often require working irregular hours including nights, weekends and holidays, depending on the requirements of the experiments. All graduate students are encouraged to take initiative and contribute ideas to their lab group. Award of a graduate assistantship or research assistantship requires a commitment of 20 hours per week towards that assistantship.

General expectations for all graduate students include:

1. Following the directions of the lab director.
2. Receiving all required training in a timely manner
3. Conducting experiments, collecting and analyzing data in a timely manner.
4. Gaining competency in the literature related to your field of study.
5. Being responsible for assisting in all basic lab duties – including washing glassware, keeping track of supplies and keeping the labs and equipment clean and orderly.
6. Once you have gained expertise in a particular methodology, you will be expected to provide supervision and training to new students.
7. All students should keep clear and accurate records of experimental procedures and results, sufficient to allow others to fully understand and reproduce their experiments.
8. Students will meet with the lab director on a regular basis to discuss experiments, data, interpretations and questions.

9. Students should ensure that all research is conducted in a safe manner, both for themselves and their coworkers. They should be trained and prepared to act appropriately during emergency situations. A Department accident report form needs to be submitted in case of an accident.
10. Students should understand the correct way to dispose of chemical, biological and/or radioactive waste.
11. Use of lab equipment and instrumentation, including telephones and computers, are for lab members only.
12. Use of college resources (including computers, printers, copy machines, class and lab equipment) are for research and class use only. Appropriate measures will be taken for abuse of these privileges.
13. Students who work with experimental animals must fully understand the responsibilities, both legal and ethical, of that work and conduct their experiments in the most humane way possible. This includes being aware of public perception and the potential for media distortion of laboratory animal research.
14. Students should fully understand and follow the professional and ethical standards required of a scientist.
15. In case of conflict of interest or professional conflicts, students will work with their advisor to resolve any conflicts in a professional manner. The Graduate Program Coordinator, Department Chair and College Dean are also available to help resolve conflicts.

Vacation and Sick Leave.

Graduate Assistants and Research Assistants do not accrue credit for vacation or sick leave, and are not classified as regular ISU employees. If a student needs time off for medical or other reasons, they may request an unpaid leave of absence that is to be approved by the department chair. With the permission of the department chair, and with the advice of the immediate faculty supervisor,

a student may receive permission to complete projects at home, work a reduced hourly schedule (with pay deducted for hours missed), or make up time later depending on the department's or college's needs.

Specific expectations for Graduate Assistants.

All Graduate Assistants will meet with the Department Chair to be assigned their duties at the start of each semester. Students will assist faculty with proctoring and grading exams, making copies, finding journal articles and general duties for a 20 hour per week commitment during the academic year (as a 9-month stipend). Additional duties will be assigned at the discretion of the chair and depending on the needs of the department. Students are to keep an accurate weekly accounting of hours spent in GA duties and turn them in to the Chair the first of each month.

Specific expectations for Research Assistants.

First year students assigned a Research Assistantship will not have a major advisor and will be taking a full course load in addition to their RA requirements. They will work at approximately 20 hrs per week in their assigned lab. The assigned lab is not required to be the dissertation lab. R.A. awards are for 12 months.

RAs in their 2nd year or more will be dedicating their time to being maximally productive in the lab of their selected research advisor.

RAs are to keep a log of research conducted, time spent in literature review, writing papers, abstracts, etc to document fulfilling requirements of the RA.