THE GRADUATE PROGRAM IN PHARMACEUTICS & PHARMACEUTICAL CHEMISTRY

The Department of Pharmaceutics & Pharmaceutical Chemistry offers a Ph.D. degree program through the Graduate School of the University of Utah. The program seeks to prepare graduate students to function independently, competently and technically in a variety of settings including academic, research, administrative, business management, legal, regulatory and investment career tracks. This goal is accomplished through formal didactic courses, seminars and journal clubs, laboratory research rotations, and dissertation research. Every attempt is made by the faculty to help the student complete the program in a timely fashion. Typically, students graduate within 5 years of entering the program, although the nature of some projects and approaches requires a longer time commitment for full completion of the dissertation work.

Chair’s Philosophy: The pursuit of a Ph.D. degree is a transient, temporary, intensive professional training experience to be pursued and completed as directly and expediently as possible. As such it is neither a vocation nor a job. The doctoral experience is expected to be enriching and rigorous; the doctoral student is expected to be productive, professional, focused and efficient. Financial support provided to each student is at the discretion of specific faculty advisor with specific technical objectives, deliverables and intellectual products anticipated and expected. Such support is a privilege for study and student productivity should be an expected deliverable. This student-advisor relationship is augmented by fulfilling the formal didactic training components, the research requirements, and by the regular, critical review and input of the student’s doctoral supervisory committee. As the department can only improve through collective work and dedicated group efforts involving students and faculty, consistent student participation in the wide variety of required and elective department activities is expected of all students. Student leadership, initiative and contributions to Department progress and growth can take numerous forms. In addition to personal research productivity, extra student-based efforts in teaching/curriculum improvement, inter-student networking and morale building exercises, research support and grant writing, interfacing with other graduate student groups, faculty committees and College leaders, and outreach service to the off-campus lay-person and on-campus undergraduate communities are some examples encouraged by the Chair to assist the department’s continual quest for improvement and international recognition. The Department’s Fox and College’s Wolf prizes recognize student-initiated leadership, impact and creative contributions “beyond the call” in this regard.

Department Mission Statement: The Department of Pharmaceutics and Pharmaceutical Chemistry seeks to create highly trained, versatile experts in the diverse sets of scientific and engineering disciplines that together represent the modern field of pharmaceutics. These experts will serve to lead the world’s industries and academic institutions to forward the field, foster innovation and progress, and endeavor to improve human therapies to benefit patient quality of life. The Department strives to be internationally recognized as a top-tier education and research program in pharmaceutics through innovative teaching and training, and creative research approaches that provide effective solutions to challenging clinical therapeutic problems. The Department’s faculty is centric to achieving these academic performance goals and in fully supporting the mission of the College of Pharmacy and the broader University’s academic mission and function as mandated by the State of Utah. Excellence can only be achieved through consistent participation of outstanding students and faculty. The Department seeks to attract the best and brightest students and faculty by creating a welcoming environment to foster success and creativity, and encourage enduring leadership using skills crucial for current global pharmaceutical employment. To capture the unique values and richness that arise from differences of culture and circumstance, as well as contrasting worldviews, we are committed to consistent and dedicated efforts to attract and retain diverse faculty and student populations.
I. GRADUATE STUDENT FINANCIAL SUPPORT AND TUITION

A. Stipend
Admission to the Ph.D. program generally includes a research-based stipend ($22,700 - $26,500 as of 11/1/14) from the research advisor. Note: this stipend is not guaranteed but linked to the availability of research funding from various sources (grants and contracts). A subsidy may be provided for individual health insurance at the research advisor’s discretion. Stipend support for the period in which the student is conducting dissertation research is the responsibility of the student’s faculty mentor and is normally derived from research grants. No Departmental funds are currently available for this purpose; no guarantees for graduate student financial support come from the Department, although it attempts to mediate extenuating circumstances and unusual hardships as resources might allow. Hence, the award of a research stipend is considered a privileged position for each student, one to be respected, and should be considered the primary means of support for the primary focus of the student in the program: expedient and efficient pursuit of the graduate degree. Stipends may also be rescinded by supervising faculty for documented student failure to progress both in research and in performing to minimal academic standards. While this can be a unilateral advisor decision, faculty-student relationships would best enroll the advice of the student’s supervisory committee before withdrawing stipend support. Additionally, the University Policies and Procedures manual (PPM) (http://www.admin.utah.edu/ppmanual/) provides specific recommendations and process for addressing “failure to progress” and other student performance deficiencies with documentation, warnings, and written responses. This is addressed specifically in Section IX below.

B. Fellowships
When available, the Department supplies special Fellowship support to select students of exceptional qualifications as dictated by resources supplied by extra-university gifts and established endowments. Faculty fellowship committees select students for annual awards, and students are also encouraged to seek out and apply continually for national and international fellowships to supplement or replace their stipend support. Stipend and fellowship support levels are determined by the faculty advisor although it is recognized that fellowship support is a distinction, and therefore, all fellowship support should remain the property of the student receiving this honorary award, with stipend support adjusted per advisor discretion. Additionally, students are encouraged to continually seek and submit their own fellowship applications from numerous university, national and international agencies that sponsor these awards.

C. Outside Employment
The Department considers award of a full-time research stipend for graduate support to be a full-time traineeship with both the privilege of support and expectation of long irregular hours required for successful degree completion. Responsibilities of such conditions of graduate study preclude pursuit of other gainful employment without interference with doctoral program progress. Therefore, students are strongly discouraged from engaging in employment outside the Department. Such arrangements must be approved in writing in advance of the situation from both the faculty advisor and supervisory committee. If a student is employed outside the Department, the student’s supervisory committee and department faculty will monitor whether such employment interferes with the expectations of the program (i.e. the student’s progress in course and research work, research or other program requirements). If the supervisory committee or department faculty determines that outside employment is unduly interfering with the student’s doctoral progress, the student may be asked to reduce their outside employment commitments or to leave the program.

D. Academic Performance, Academic Standards and Standing
All graduate students are required to maintain good academic standing as defined by the Graduate School (http://www.gradschool.utah.edu/catalog/grading.php) in addition to other academic
standards specified by the Department. Many privileges associated with graduate standing require this minimal academic performance. Students who fall below minimum academic performance requirements are placed immediately on academic probation for one semester. If these students fail to correct their record after one semester with subsequent improvements in academic performance so to maintain minimal standards as defined by the Graduate School, then they will lose benefits, including fellowships, tuition support, and stipend. This may require that they leave the program, either voluntarily or involuntarily.

**D.1 Grades.** As per the Graduate Student Handbook for the Graduate School at the University of Utah, “Candidates for graduate degrees are required to maintain a 3.0 or higher GPA in course work counted toward the degree (i.e. courses on the program of study). A grade below C- is not accepted for credit toward a graduate degree...". Furthermore, as stated in [http://regulations.utah.edu/academics/6-100.php](http://regulations.utah.edu/academics/6-100.php):

"Under Rules approved by the Academic Senate, students may elect a limited number of courses in which they will receive the grade "CR" in place of grades "A" through "C-" or the grade of "NC" in the place of "D+", "D", "D-", "E" and "EU". The "CR" grade shall carry credit toward graduation, but neither the "CR" nor "NC" grades will be included in computing grade point averages."

Hence, any courses graded as CR/NC will only count as generic "credit hours" towards the degree and do not satisfy the doctoral degree didactic coursework requirements where letter grading is required for determination of GPA per the Graduate School and Department policies.

**The Department of Pharmaceutics further restricts lower classwork grades:** the Department does not accept grades below a B- for credit toward the graduate degree. Note that the 3.0 GPA requirement exists for didactic coursework and is not calculated with any non-didactic (e.g., research/dissertation or independent study) hours. A student whose GPA falls below a 3.0 for any given semester will be placed on academic probation until the GPA is brought above 3.0. Two or more semesters on academic probation are grounds to terminate the student from graduate study at Utah for poor academic performance.

**D.2. Academic Standards.** Academic standards for students in Pharmaceutics and Pharmaceutical Chemistry:

1. GPA of 3.0 or higher in all didactic coursework is required
2. Laboratory rotations, when applicable, must be satisfactorily completed.
3. Academic dishonesty is not allowed. Dishonesty or misconduct is defined by the National Academy of Sciences, the University of Utah Student Code, or this policy statement. Cheating, plagiarism, and other forms of academic dishonesty are serious offenses and are explicitly defined below (see Section X).

Action will be taken in cases of failure to meet academic standards or violations of academic honesty or integrity that may include grade reduction, failing grade, probation, or dismissal from the University. Note that two students recently were expelled from the University of Utah for violations in academic dishonesty. In other words, this situation is not to be taken lightly.

**E. Tuition**

Tuition waivers for full-time graduate students in good academic standing are available to qualified graduate students compensated through University of Utah research accounts (i.e., from Pharmaceutics faculty member or Departmental fellowship research accounts) under the Graduate School’s *Tuition Benefit Program* (TBP). Important details of the TBP can be found at the Graduate School’s website ([http://www.gradschool.utah.edu/tbp/guidelines.php](http://www.gradschool.utah.edu/tbp/guidelines.php)). This benefit
covers general graduate tuition and mandatory fees for graduate students in good academic standing paid from specific types of university accounts. Tuition for undergraduate courses as assigned for remedial or to satisfy degree pre-requisites is the responsibility of the student.

Students may participate in the TBP for a limited number of semesters, which need not be sequential. Participation limitations in the program are as follows:

**E1.** Students in a Master's program are limited to two years (4 semesters) of tuition benefit support.

**E2.** Students in a doctoral program who entered with a Bachelor's degree are limited to five years (10 semesters) of tuition benefit support.

**E3.** Students in a doctoral program who also received a Master's degree at the University of Utah are limited to five years of tuition benefit support (2 years for a Master's + 3 additional years for a doctorate).

**E4.** Students entering a doctoral program with a Master's degree from another university are eligible for four years (8 semesters) of tuition benefit support.

Students must be enrolled for 9-11 semester hours of graduate coursework (5000 level or above) in both the fall and spring semesters. Students covered by the TBP through the graduate school can, but need not, register for 3 semester hours in the summer (but note: summer hours count towards the 84 credit hour TBP limit, see details below). Students defending their dissertation must register for 3 credit hours of PHCEU 7970 during the semester they defend. The Graduate School will NOT pay for more than 11 credits in either the spring or fall semester or more than 3 credits in the summer. If the student wishes to enroll in more credits, he/she will be financially responsible for the tuition overload. Tuition support for such instances is elective and should be discussed by the student, the mentor, and the Department Chair.

**Important:** When a graduate student research assistant who is an International student or a US Citizen who has not established Utah residency exceeds 84 cumulative credit hours, only resident (in-state) tuition will be covered by TBP, up to the maximum period allowed by the program (5 years for Ph.D. students entering with a B.S. degree; 4 years for Ph.D. students entering with a M.S. degree; 2 years for M.S. students). For such research assistants, thesis research hours (7970) and faculty consultation (7980) are the only classes billed at the resident rate. All other courses are the financial responsibility of the research assistant. This policy becomes effective during the semester in which cumulative registration exceeds 84 credit hours as a University of Utah graduate student. Undergraduate, contract and/or audited courses count toward the required minimum 9 credit hours but do not qualify for tuition benefit. A student registered for fewer than 9 credit hours may make up the difference by registering for PHCEU 6970, 6980, 7970, 7980, or other appropriate graduate credit.

Students may register for a maximum 16 semester hours but are responsible for tuition for hours exceeding 11 credits. Students adding and/or dropping courses after each semester’s published add/drop deadlines are responsible for any and all charges incurred. If registration falls below 9 credit hours at any time during the semester, a student becomes ineligible for TBP participation and will be billed personally for the full tuition payment for that semester. Lastly, PHCEU students who drop completely from the graduate program after the semester add/drop deadline may be held responsible for paying their complete semester tuition personally under Graduate School mandates. The Department is not responsible for this payment.

**Important note:** (from the on-line guidelines for the Graduate Tuition Benefit in the Graduate School) “Out-of-state, non-international graduate students receiving a tuition benefit must apply for Utah residency upon fulfilling forty (40) semester credit hours at a regionally accredited Utah institution of higher education. Comprehensive and aggressive action
should be taken by departments to ensure that U.S. citizens apply for Utah residency once 40 graduate credit hours are reached. A student's ability to establish residency will not affect receipt of a tuition benefit. (Go to www.admissions.utah.edu for details on how to apply and qualify for residency reclassification)."

For the most current or additional TBP information, please refer to the Graduate School’s website, https://gradschool.utah.edu/tbp/index.php

II. DEPARTMENT SAFETY

Safe laboratory conditions and operating procedures are the collective, continuous responsibility of all personnel working in the laboratories: it is each student's obligation to ensure their own safety during the graduate research and also that all fellow lab-mates follow safe operating procedures at all times. It is also each individual’s responsibility to bring unsafe situations or practices to department attention for immediate mitigation.

Specific University safety requirements are detailed at http://ehs.utah.edu/research-safety for all research workers. Students are expected to understand these obligations and their role in preserving a continuously safe laboratory work environment both for themselves and all co-workers around them. Students must remain vigilant in laboratory routines to abide by these guidelines. See the attached model Safety memo (appendix) that outlines PI-specific expectations for members of their lab.

In addition to laboratory environment safety protocols and policies, each student is expected to know emergency evacuation policies, routes, meeting points and procedures in case of a natural disaster or other emergency. Faculty mentors are advised to provide research group-specific guidance to students in addition to Department, College and University protocols in this regard.

III. GRADUATE STUDENT ACADEMIC ENROLLMENT

A. Course Registration
The University of Utah "Class Schedule Student Handbook" is available in the lobby of the Olpin Student Union Building approximately 3 months before each semester begins. The Class Schedule also is available on-line at: http://www.utah.edu/students/catalog.php Registration materials are mailed to students informing them of their assigned registration dates. Registration must be completed by the assigned date or a late registration fee is charged to the student and is not the department responsibility.

Continuing students are NOT required to register for summer semester unless they intend to defend their dissertation that semester or if they have to demonstrate continuous registration for student housing, foreign student visa status, or any other reason. In such instances, the student should register for the minimum of 3 credit hours. Students DO NOT need to register for the summer semester to maintain health insurance coverage.

Students who have advanced to Ph.D. candidacy (i.e., passed all required comprehensive and preliminary exams) and/or completed course requirements must register for 9-11 credit hours of Pharmaceutics 7970 (Thesis Research: Ph.D.) in fall and spring semesters while supported by the Tuition Benefit Program. After exceeding the specified TBP support maximum hours, they should then register in 3 credit hours of Pharmaceutics 7970 (Thesis Research: Ph.D.) in fall and spring semesters until they graduate.
B. Graduate Program Curriculum
The objectives of the graduate curriculum are (1) to provide a strong background in modern-day, basic biomedical sciences that provide the underpinning for pharmaceutics and pharmaceutical chemistry, (2) to train students in the fundamental concepts of pharmaceutics and pharmaceutical chemistry as a discipline, and (3) to facilitate more specialized training as needed for the dissertation research. Coursework is normally completed during the first two years and should be aligned with the educational goals of students in their interests and project areas.

B1. Prerequisites
a. Organic chemistry with laboratories – one year
b. Physical chemistry – one year
c. Calculus – one year
d. Anatomy, cell biology, developmental biology, classical genetics, or physiology – one semester

B2. Required Coursework (didactic: 25 hours; total hours: 31)
   a. Core Pharmaceutics sequence (PHCEU 7021, 7010, 7011, 7020, 7030, 7040) – 17 cr
   b. Electives – at least 4 elective courses that total to a minimum of 8 credit hours
   c. Journal Club (PHCEU 7975) – 1 cr per semester for 4 semesters
   d. Seminar PHCEU 7870 – 1 cr in the semester only when presenting full research seminar
   e. PHCEU 7031 “Lipid Based Drug Delivery” (0.5 cr) when offered
   f. MBIOL 7570 “Case Studies and Research Ethics” (1 cr)

B3. Department Seminar (see also Section IV.B)
All graduate students are expected to attend department seminar each week. In addition, they are required to present at least two seminars prior to their Ph.D. defense. One of these must be presented orally to the Department, after they have passed their written comprehensive exam. Students may, however, substitute a podium or poster presentation at a national meeting for the second seminar; alternatively, students may substitute two podium or poster presentations at a local or regional meeting for the second seminar. The Ph.D. defense is considered a department seminar and should be presented during the seminar’s regularly scheduled meeting time (Mondays at 4 PM) if possible.

B4. Highly Recommended Electives
   a. Biocompatibility (PHCEU 7210) (2 cr)
   b. Biostatistics [FPMD 6100 (3 cr with lab) or PH TX 6680 (2 cr with lab)]
   c. Biomaterials (PHCEU 6020 (3 cr w/o lab)

B5. Recommended Class Schedules for Entering Students

<table>
<thead>
<tr>
<th>First Semester (Fall)</th>
<th>Second Semester (Spring)</th>
<th>Third Semester (Fall)</th>
<th>Fourth Semester (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHCEU 7010 (1.5 cr)</td>
<td>PHCEU 7010 (1.5 cr)</td>
<td>PHCEU 7020 (4 cr)</td>
<td>PHCEU 7011 (2 cr)</td>
</tr>
<tr>
<td>Molecular Biology (1st 7 weeks)</td>
<td>Molecular Biology (1st 7 weeks)</td>
<td>Advanced Physical Pharmacy &amp; Dosage Forms</td>
<td>Pharmacokinetics</td>
</tr>
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<td>Pharmacokinetics</td>
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</tbody>
</table>

1 Core sequence (PHCEU 7010 – 7040) is generally taught annually, or at least biennially. The comprehensive exam, offered fall and spring semesters annually, must be taken within six months of completing the core sequence.
2 Students must take 4 PHCEU 7975 1-credit hour Journal Club courses starting their first semester after matriculation. The sequence should be taken sequentially without interruption unless permission to do otherwise is granted.
<table>
<thead>
<tr>
<th>PHCEU 7021 (2 cr)</th>
<th>PHCEU 7040 (4 cr) Biotechnology</th>
<th>PHCEU 7975 (1 cr) Journal Club</th>
<th>Electives or Ph.D. Thesis Research (PHCEU 7970) (8-10 cr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHCEU 7030 (4 cr)</td>
<td>Macromolecular Therapeutics and Drug Delivery</td>
<td>PHCEU 7975 (1 cr) Journal Club</td>
<td>Electives or Ph.D. Thesis Research (PHCEU 7970) (6-8 cr)</td>
</tr>
<tr>
<td>PHCEU 7975 (1 cr)</td>
<td>MBIOL 7570 (1 cr), or Ph.D. Thesis Research (PHCEU 7970) (0-2 cr)</td>
<td></td>
<td>Research seminar when <em>presenting only</em> (PHCEU 7890, 1 cr)</td>
</tr>
<tr>
<td>Electives or Ph.D. Thesis Research (PHCEU 7970) (0.5-2.5 cr)</td>
<td></td>
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</tbody>
</table>

**B6. Recommended Elective Courses for Students Specializing in the Following Research Areas**

### Advanced Pharmaceutical Chemistry

- PHCEU 7095 Molecular Modeling and Biomolecular Simulation from a Pharmaceutical Perspective – 2 cr
- BIOEN 6065 Biotransport – 3 cr
- CHEM 7000 Introduction to Quantum Mechanics I – 2 cr
- CHEM 7010 Introduction to Quantum Mechanics II – 2 cr
- CHEM 7020 Introduction to Spectroscopy I – 2 cr
- CHEM 7030 Introduction to Spectroscopy II – 2 cr
- CHEM 7040 Statistical Thermodynamics – 2 cr
- CHEM 7050 Classical Thermodynamics – 2 cr
- CHEM 7240 Physical Organic Chemistry I – 2 cr
- CHEM 7250 Physical Organic Chemistry II – 2 cr
- CHEM 7260 Physical Organic Chemistry III – 2 cr
- FPMD 6100 Biostatistics – 3 cr
- PH TX 6680 Statistical Methods for Pharmacological Research – 2 cr

### Drug Delivery Systems

- PHCEU 7031 Lipid-based Drug Delivery Systems – 0.5 cr
- PHCEU 7095 Molecular Modeling and Biomolecular Simulation from a Pharmaceutical Perspective – 2 cr
- PHCEU 7210 Biocompatibility – 2 cr
- BIOEN 6140 Tissue Engineering – 3 cr
- PHCEU 6020 (BIOEN 6302) Biomaterials – 3 cr w/o lab
- BIOEN 7140 Advanced Topics in Tissue Engineering – 2 cr
- BIOEN 7160 Physical Nature of Surfaces – 3 cr
- BIOEN 7168 Proteins at Interfaces and in Membranes – 3 cr
- BIOEN 7170 Biomolecular Engineering – 3 cr
- BLCHM 6410 Protein and Nucleic Acid Biochemistry – 3 cr
- BLCHM 6460 Protein Chemistry – 2 cr
- FPMD 6100 Biostatistics I – 3 cr
- MDCH 6550 Site-Specific Drug Targeting – 1-2 cr
MSE 5473  Polymer Synthesis/Characterization – 3 cr
MSE 6480  Polymer Science – 3 cr
NEUSC 6500 Advances in Vision Research – 3 cr
PH TX 6680 Statistical Methods for Pharmacological Research – 2 cr

**Biotechnology**
PHCEU 7095 Molecular Modeling and Biomolecular Simulation from a Pharmaceutical Perspective – 2 cr
BIOEN 7140 Advanced Topics in Tissue Engineering – 2 cr
BIOEN 7160 Physical Nature of Surfaces – 3 cr
BIOEN 7168 Proteins at Interfaces and in Membranes – 3 cr
BIOEN 7170 Biomolecular Engineering – 3 cr
BLCHM 6410 Protein and Nucleic Acid Biochemistry – 3 cr
BLCHM 6430 Structural Methods – 3 cr
BLCHM 6450 Biophysical Chemistry – 2 cr
BLCHM 6460 Protein Chemistry – 2 cr
FPMD 6100 Biostatistics I – 3 cr
MDCH 6550 Site-Specific Drug Targeting – 2 cr
MDCH 6560 Biomedical Applications of Mass Spectrometry – 2 cr
PH TX 6680 Statistical Methods for Pharmacological Research – 2 cr
PH TX 7500 Biochemical Mechanisms of Signal Transduction – 2 cr

**Pharmacokinetics and Pharmacodynamics**
PHCEU 7316 Clinical Pharmacokinetics and Pharmacodynamics – 2 cr
FPMD 6100 Biostatistics I – 3 cr
MDCH 6550 Site-Specific Drug Targeting – 1-2 cr
MDCH 6560 Biomedical Applications of Mass Spectrometry – 2 cr
ONCSC 6150 Biostatistics – 2 cr

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**C. Petition for Prior Class Credits to Count Toward Fulfillment of Degree**

A student may petition for prior class credits to apply toward the fulfillment of required coursework. The student should write a letter to the Director of Graduate Studies and Department Chair listing the course, the official text used to describe the course from the university course catalog, the textbooks used in the course, the number of credit hours given for the course, the grade received and a brief description of the course content. If available, the official class syllabus should be included.

The Director of Graduate Studies and Department Chair will determine whether the course can be counted toward the degree based on the relevance of the topic to the student’s training in Pharmaceutics and Pharmaceutical Chemistry, the demands of the course being commensurate with graduate course-level requirements, the course material covered being current within the past two years, and the student’s performance in the course being satisfactory. Approval or denial will be determined by the Director of Graduate Studies and Department Chair.

If courses approved by the Director of Graduate Studies and Department Chair were taken at the University of Utah as a non-matriculated graduate student before officially matriculating in the Department of Pharmaceutics, a maximum of nine credit hours may be included on the student’s Program of Study form. Approved courses taken at other academic institutions cannot be listed on the Program of Study form, though the student should inform his/her supervisory committee of any courses officially waived by the Department.
IV. SEMINARS, STUDENT PRESENTATIONS AND JOURNAL CLUB

A. Seminar Attendance
The Department hosts graduate student seminars every week, except during holiday breaks. It is mandatory that all graduate students attend these seminars each semester, though official registration in PHCEU 7890 is not required except for those students presenting. Research faculty, research associate and postdoctoral researcher attendance, participation, critique, input and leadership are also expected.

B. Student Seminar presentations
All graduate students are required to present three (3) quality technical research-based seminars as part of their Ph.D. training experience. Students must first pass the written comprehensive exam and also have their own reasonable, credible and sufficient scientific data to present before giving their first research seminar presentation. At least two of these seminars must be presented formally to the Department: at least one during the regular scheduled department seminar period, and attended by the Department faculty, postdoctoral researchers, and students. During the semester that the student presents a research seminar to the department, they must register for PHCEU 7890 “Department Seminar”, 1 credit, in order to be formally graded for their seminar performance. Should they pass this seminar, the student’s Ph.D. dissertation defense can qualify as one of the 3 “counted” seminars if this defense is attended by the majority of the department’s faculty and students, and advertised properly to target and recruit this audience. Students must present a second department seminar if they have not presented their data a year or more beyond their oral preliminary examination. Students may substitute a podium or poster presentation at a national meeting for the third required seminar; alternatively, students may substitute two podium or poster presentations at a local or regional meeting for the third seminar. Students cannot present seminars in two consecutive semesters unless the amount and type of data presented are substantially different, and this is pre-approved by the Department chair. Please plan seminar presentations with sufficient time intervals to allow new data collection and improved technical reporting of sufficient rigor to reward a department audience.

In general, these seminar talks are expected to follow a conference presentation format, with an introduction, discussion of methods, results obtained and overall discussion for the presentation and then end with the integrative section. Students are strongly encouraged to practice the entire talk before mentors or group members prior to the actual seminar. Research mentors are expected to assist the student in the preparation of the presentation as it will be graded. Presenters are required to bring the research seminar evaluation form (downloaded from the Appendix) to their talk to give to attending faculty for written critique.

C. Journal Club
Students are required to enroll in department journal club (PHCEU 7975) for four semesters following matriculation. The purpose of these journal clubs is to provide focus on special topics, enable students to stay abreast of broad areas of research and to foster critical analysis of scientific work. A faculty moderator will choose the scientific topic and assign research articles for the students to read. Each student enrolled in journal club is expected to present at least one article each semester. Presenters will summarize the scientific problem addressed by the article, experimental methods, results and interpretation. They will lead a peer critique and discussion of the relative scientific merit of the paper including strengths and weaknesses. Students will be graded (credit/no credit) based on their participation, presentation of their assignments and their participation in the discussion of other students’ presentations.
V. TEACHING ASSISTANTSHIPS

Graduate students in the Department of Pharmaceutics and Pharmaceutical Chemistry are required to engage in one term as a didactic course teaching assistant (TA). The expectation is that the teaching assistantship provides a valuable pedagogical leadership experience and mentoring opportunity for the graduate student. TA assignments will be selected from the department’s core courses or other graduate-level courses as determined by faculty.

The TA requirement is normally fulfilled during the student’s third year but can be satisfied prior to this time if the student is asked to assist any class.

TA obligations include:

1. Exhibiting English language proficiency to interact effectively with students in a leadership and pedagogical manner. The Graduate School requires all non-native English-speaking graduate students to be cleared by the ITA Program in advance of any teaching exposure in order to be eligible for a tuition benefit for teaching assistantships. Participation in the annual ITA training workshop is therefore a compulsory requirement for all department international students upon formal graduate program initiation.

2. Meeting with the instructor of record before the semester begins to initiate organization and expectations for roles and duties.

3. TAs should attend all lectures and be sufficiently familiar with materials covered in class and homework to be able to tutor the content.

4. TAs should contribute in a substantive way to the pedagogical needs of the course. This will be determined by the instructor and the particular nature of the course. For example, TAs would be expected to undertake one or more of the following activities: (a) deliver one or more lectures; (b) lead problem-solving or discussion sessions prior to exams; (c) exam grading.

5. TAs should plan on spending 3-4 hours/week in class and an average of 3 to 5 additional hours per week for other pedagogical activities related to the course.

6. Financial support will continue by the student’s research advisor during the first and required TA assignment. When students TA for a second or even third time, additional support is provided by the Department in the form of a one-time stipend.

Additional TA training is encouraged. TA training is offered each summer through TA training workshops sponsored by the University and the semester-long TA Scholars program run through the University’s Center for Teaching and Learning Excellence (CTLE).

VI. STUDENT SUPERVISORY COMMITTEE

The Department faculty collectively assumes mentoring responsibilities for all graduate students until their Supervisory Committee is formed in consultation with their faculty advisor. All graduate students should formally establish their Supervisory Committee within one month after successfully passing their comprehensive exam. This also is best timed with corresponding selection of a dissertation research topic near the completion of coursework. Since the Supervisory committee is very important to the outcome and progress of the research project, and ultimately responsible for both the Preliminary Exam and Dissertation Defense judgments, careful selection of Supervisory Committee members is very important. This selection should consider faculty expertise best suited to support and advise the student on their topic. Until a Supervisory Committee is established, faculty will provide the student with an annual review of progress in the form of a written memorandum assessing progress and concerns, placed in the student’s file.
The student's Supervisory Committee, chaired by the research advisor, consists of five faculty members and **forms the primary departmental faculty contact, review, and advisory group for each student.** Of the five faculty members, three must be regular faculty in the student's major department. One member of the supervisory committee must be from another department. Others can be added if expertise is required and the committee is properly managed. Each student is required to convene their supervisory committee **annually** to evaluate the student's research progress and strategies, technical problems and success, and coursework advancement. An annual committee meeting form (see Appendix) must be signed by the Committee and filed by the student with the Department office to go into the student's file annually. As the primary research review mechanisms, advocate and ombudsman for the student, the supervisory committee should also be consulted in cases of student-advisor conflict, or impasse, misconduct, or failure to progress, and can render impacting recommendations to the research advisor, and if necessary, to the Department Chair, to resolve such issues. Lastly, the **Supervisory committee** must read, edit, review and approve the student’s dissertation drafts and final edition **prior to** (1) the Chair’s review of the approved dissertation document, and (2) submission to the University Thesis Editor for format approval.

For conducting the student's preliminary exam, committee chair duties temporarily shift to another member of the student’s supervisory committee, rather than the research advisor. The specific oral exam chairperson is specified at the time of the preliminary exam, generally by consensus of the supervisory committee. The student’s research advisor may attend the oral technical presentation during the first part of the exam, but is not present for the closed second part of the exam (see Section VII E).

**VII. COMPREHENSIVE AND PRELIMINARY EXAMINATIONS**

The department administers two major exams required of all Ph.D. students.

**A. Requirements and Scheduling**
All students are required to take the department’s written comprehensive examination within six months of completing their department core courses. This deadline is generally not flexible but can be changed under extenuating circumstances with Department chair’s approval. This exam will be offered twice yearly: summer and spring semesters. Students planning to take the exam should notify the department comprehensive exam coordinator at least **one month before** the end of the semester preceding the semester in which they plan to take the exam.

**B. Comprehensive Exam Topics**
Students will be evaluated for their written performance and demonstrated advanced proficiency on questions relating to relevant topics in the field and core course content, including:
1. Physical chemistry, physical pharmacy, and dosage forms, including solvent theory, equilibria, thermodynamics, mass transport, colloids and surface science.
2. Physical organic and polymer chemistry, chemical kinetics and reaction mechanisms.
3. Drug delivery, including targeting, internalization and intracellular trafficking.
4. Pharmacokinetics and pharmacodynamics.
5. Pharmaceutical Biotechnology
6. Appropriate pharmaceutical characterization and analytical methods
7. Appropriate data handling, statistical methods and experimental design

**C. Comprehensive Exam Procedures**
Each student will receive five questions that test the student’s knowledge of the program’s core curriculum. Particularly, there will be one question for each of the core Pharmaceutics core
courses (PHCEU 7010, 7011, 7020, 7021, 7030 & 7040). Questions will be written and graded by Department faculty members selected by the Chair or exam coordinator. Students are required to submit their own independently worked electronic file responses to the exam questions as separate, clearly identified .pdf file answers to each exam question. These would best come from computer-generated (text-typed, equation-edited, but not hand-written and scanned) documents within ten days from the date of exam distribution to the exam coordinator in the department. A student-named electronic folder containing all 5 .pdf-generated answer files with identifiers linked to each submitting student can be conveyed to the department coordinator using CD-ROM, .ftp, email or memory-stick mechanisms (i.e., use a filename format such as “STUDENT_NAME_PHCEU7020.pdf” for each answer submission). No paper hardcopies of answers are accepted for exam answers (note: all photocopying required for any exam needs is not done at department expense). No answer revisions will be accepted after the ten-day submission deadline. Students are expected to conform to all policies regarding academic honesty and integrity in producing their answers: essentially that all work submitted is their own with all external supporting materials and resources clearly cited in the exam answers.

D. Comprehensive Exam Grading
Faculty will have two weeks from the date the exam answers are received to grade them. Grading of each of the five questions will be on a scale of 0-100, with a score of 80 considered to be a minimum passing score for each question. Results will be conveyed to the student in writing by the Graduate Program Advisor or to the Chair and be filed in the student’s official dossier. Students may appeal the grading of a particular question. In such cases, three faculty members (other than those who wrote the question) will be selected by the preliminary exam coordinator to re-grade the question being challenged.

Students passing all written questions will receive an unconditional pass for the comprehensive exam.

Students failing to pass one or two of five written questions will receive a conditional pass for the comprehensive exam and will have one month to submit correct answer(s). The faculty will then have one month from the date that the revised answers were submitted to re-evaluate them. Failure to answer one or two questions correctly in the resubmission, or missing any deadlines, will require the student to repeat the entire comprehensive exam at the next scheduled date. The second comprehensive exam will be the final opportunity to pass this requirement.

Students failing to pass three questions will fail the comprehensive exam. These students will be required to repeat the entire comprehensive exam at the next scheduled exam date. The second comprehensive exam will be final.

Students who fail the second exam are no longer eligible to continue in the doctoral program.

E. Preliminary Exam Procedures
To advance to Ph.D. candidacy, all students must pass a preliminary examination that consists of both an original written research proposal and an oral examination by their supervisory committee. This must be completed within one year of passing the comprehensive exam. This deadline is generally not flexible but can be changed under extenuating circumstances with Department chair’s approval. Circumstances including a sudden radical change of research support or project theme could justify such a change. The student should consult first with his/her research advisor to confirm a suitable topic for their research proposal. The research proposal topic may be based on either (1) their own research but with new aims not proposed by or originating from their advisor (see below), or (2) new original pharmaceutically relevant research (not previously
submitted for funding by anyone) that falls within the broad categories listed above (under comprehensive exam topics, see Section VII.B.).

The **written research proposal** will be evaluated for content, significance, accuracy, technical proficiency and maturity by a preliminary exam committee comprising four faculty from the student’s supervisory committee, but not the student’s research advisor. The supervisory committee shall select one of these four as the chair of the preliminary exam committee at the time of the oral examination. Committee member substitutions are allowed at the discretion of the department chair.

To satisfy this requirement, the student’s research proposal follows the current NIH SF424 R01 proposal format effective January, 2010 (for the SF424 forms for various proposal components, see [http://grants.nih.gov/grants/funding/424/index.htm#inst](http://grants.nih.gov/grants/funding/424/index.htm#inst)). The following sections are required: *proposal abstract, table of contents, detailed first-year budget, budget justification budget for entire project period, biographical sketches for student as PI and advisor as consultant or co-I, other research support, resources and facilities, specific aims, full research strategy section* per the current NIH SF424 proposal format, *vertebrate animals justification section* if appropriate, and *complete references* in required format, including article titles.

The complete **research strategy** component shall consist of these sub-sections from a typical NH R01 proposal format: *specific aims (max. 1-page), plus a 12-page maximum section of significance, innovation, research design and methods, and preliminary data* (typically from relevant literature, but could be the student’s own data, or a mix). Preliminary data should be clearly designated as taken from cited literature, work from others in the lab, or the student’s own work. A well-designed, detailed, scientifically credible experimental design with appropriate modern procedures is essential in this 12-page research strategy description (note: specific Aims are one additional page). Expected technical deliverables and brief alternative approaches are also encouraged. Timeline table and NIH-style budget and justification components are required. A vertebrate animal section and co-personnel vitae are to be supplied when necessary. Proposals not following the prescribed formats or page limits for the R01 format will be returned. Students may use proposals developed for a grant writing class, but all written research proposals submitted for the exam will contain at most, one (1) currently existing technical aim taken from a currently existing research proposal. Remaining aims (at least one or more) must be distinctly new with sufficient original research plan development to support them and address their technical requirements.

**Importantly**, all students must receive pre-approval from their supervisory committee for all aims and their working hypothesis in the written proposal before proceeding to independently write their research proposal. Student-drafted aims and hypothesis (one page maximum, NIH format) must be submitted to their committee at least 10 days prior to a scheduled supervisory committee meeting seeking full committee approval to proceed to writing the proposal. The student must attempt to convene the entire committee for consensus and recommendations on hypothesis and aims for approval before writing their own original research proposal.

*Any data or text material taken from another existing proposal or any other source must be clearly cited as such to avoid plagiarism issues.* Proposals should be written for a 3-year timeline with the student as principal investigator (PI). A budget considering expected personnel, equipment, services, supplied and expendables, and other necessary items for research should be included. This budget can be itemized or modular but should be clear, accurate and descriptive of the proposed work. The student’s advisor (or other committee members) may read the written proposal and provide limited and general recommendations and feedback *once* without explicitly altering or substantially re-writing the proposal for the student. However, the student must develop...
the entire proposal on their own without appropriating substantially from an existing proposal, as well as their original technical aims (as stated above) or the original research (as stated above on his/her own). Philosophically, the entire proposal should represent the student's own original writing, technical analysis and ideas, not that of a faculty mentor. Copying text or materials from other proposals without formal citation or attribution is considered plagiarism and punishable under University guidelines.

The complete written research proposal is assembled according to the order of the required pieces specified in the NIH table of contents document and in electronic format as a single .pdf file. This research proposal in electronic (single .pdf file) and (optional, by faculty agreement only) hard copy (printed) format should be distributed to the supervisory committee members at least one week before the scheduled oral exam meeting.

**Oral exam on the written research proposal.** The student must orally defend their research proposal within a year from the date that the student was informed of his/her comprehensive exam grade. In the case of a conditional comprehensive exam pass, the oral exam deadline will not be extended to one year beyond the time required to comply with the comprehensive exam conditions. Students who do not comply with the deadline will have only one chance to pass their exam. The student should arrange a mutually acceptable oral exam date for the oral proposal defense with their committee and then schedule it through the department staff seminar coordinator. Additionally, an announcement of the oral exam should be posted to the department’s electronic seminar website and e-mailing list at least one week before the proposal defense. Please contact the department’s graduate student coordinator about preparing this announcement with these timelines.

On the day of the oral proposal defense, the student will first provide a detailed oral technical presentation (approximately 45 minutes duration) of the proposal. This presentation is open to the public. Following the presentation, the exam committee conducts the oral examination in a closed session with the student. Each committee member will question the student about the proposal and/or other scientific concepts and topics related to the broad categories listed above. The student’s research advisor may not attend the closed portion of the oral examination. There is no strict time limit on the exam, but a duration of 90 minutes in the closed session is often appropriate. Immediately after the oral examination, the committee will meet and evaluate the student’s performance. Three outcomes are possible – pass, conditional pass and fail. These outcomes are described below. The student must provide the official University of Utah form (Report of the Qualifying Examination for the Ph.D., Ed.D, or M.Phil. Degree and Recommendation for Admission to Candidacy) to the committee to report the outcome of the preliminary examination (http://www.gradschool.utah.edu/students/forms/doctoral/qualifying.pdf). The chair of the preliminary examination committee will write a letter summarizing the consensus of the committee’s critique and informing the student of the outcome, and what revisions (if any) are required for any conditional pass. This letter will also document specific reasons for a conditional pass or failure. The letter will be sent within one week of the examination to the student, advisor and department chair, and be filed in the student’s official dossier.

**F. Preliminary Exam Possible Outcomes**

1. **Pass:** Students who receive a pass will advance to Ph.D. candidacy. No further work will be required – the student has completed the exam in full. The committee must unanimously agree upon a pass.

2. **Conditional Pass:** Students judged to be deficient in certain areas of the proposal and/or the oral examination committee will receive a conditional pass and will have 4 weeks from the date of
issue of their committee’s proposal defense evaluation letter to correct deficiencies in the proposal and/or fulfill other requirements as stipulated by the committee. Students may solicit feedback from their committee members and advisor while revising their proposal. The revised proposal should include an introduction section that details specific changes made in the revised proposal (see PHS form 398 for detailed instructions). The revised proposal should be submitted to both committee members and the department office on or before the 4-week deadline. This submission will be final (i.e., subsequent revisions will not be considered). Committee members will then have 3 weeks to review and judge the revised proposal. Un-reviewed proposals will automatically receive a pass. The final decision (pass or fail) will be decided by a majority of the committee. In case of a split vote, the committee chair will make the final decision. In the event of failure, or if the student’s 4-week resubmission deadline is missed, the student will have one more opportunity to retake the exam.

3. Failure: Students who fail the preliminary exam will be required to submit and defend a new research proposal. The second submission will be final. The due date of the second submission is at the discretion of the committee, but no longer than 6 months from the date of the original proposal examination date.

VIII. STUDENT RESEARCH PUBLICATION REQUIREMENTS FOR DEFENSE ELIGIBILITY

The Department’s official Defense Clearance Form (also known as “check-sheet”, available from the Department’s graduate secretary or department website download, see Appendices) mandates that no student can request to schedule their dissertation defense without first submitting at least two full first-authored manuscripts to quality, reputable, recognized peer-reviewed scientific journals in the field. While this is the department’s standard, each faculty advisor has their own requirements in this regard that can and may exceed this requirement and should be followed instead. Extreme circumstances that require a student to attempt to by-pass their research advisor’s requirements in this regard mandate a Supervisory Committee meeting to resolve the issues and present a memo to both the Chair and Research Advisor describing the conditions and proposing a solution. Under no circumstances will less than 2 publishable and submitted full scientific manuscripts qualify for a Ph.D. degree.

IX. PREPARING FOR THE FINAL Ph.D. DEFENSE, TIME LIMIT FOR DEGREE COMPLETION, AND DISMISSAL PROCESS FOR FAILURE TO PROGRESS

A. Dissertation Defense Pertinent Information

Before a Ph.D. degree can be conferred, the student is required to prepare a formal written description (the thesis dissertation), present the work in a public seminar and successfully defend the work during a formal dissertation defense. The dissertation must follow the established University of Utah format. “A Handbook for Theses and Dissertations” which gives the guidelines for the dissertation is online at http://www.gradschool.utah.edu/thesis/handbook.pdf or is available through the office of the Thesis and Dissertation Editor located at 202 Park Building. Students should also read and be aware of the University’s requirements for dissertation drafts for defenses (see p. 41 of the General Catalog), applicable to Ph.D. defenses in Pharmaceutics. Doctoral candidates may submit one preliminary draft to the thesis editor’s office prior to the oral defense where a precursory check for style and accuracy will be performed.

Prior to scheduling their defense, the student must first obtain full approval for all dissertation content and complete initial editing by their research adviser.
Prior to scheduling their defense, the student must also complete the Department’s official Defense Clearance Form (available from the Department’s graduate secretary or website) and obtain an official copy of their transcripts from the Registrar’s office (with appropriate lead time, students may also ask the Department’s graduate secretary to obtain a copy of their transcripts from the Registrar’s office). The student should then give both the completed Defense Clearance Form and a sealed copy of the official transcripts to the Department’s Director of Graduate Studies for review. If the student has completed all requirements for defending their dissertation, the Director of Graduate Studies will sign the Defense Clearance Form and forward it to the Department Chair for review and signature. As soon as both signatures are obtained (and not prior), and the student has received full dissertation reading approval from their adviser, the student can proceed to arranging a defense date. Only then can their dissertation defense date be scheduled for a mutually agreeable date with their committee, not in conflict with usual department functions and consistent with all timelines specified herein.

The Department requires (as per the Defense Clearance Form) that copies of the adviser-approved draft dissertation for committee use be spiral-bound (two-sided copying is acceptable), and that an additional inspection copy be filed with the graduate secretary (Skaggs department office) fully two weeks before the scheduled oral thesis exam date. Also, an announcement of the student’s defense with title using an approved department format should be posted to the department’s electronic seminar mailing list at least two weeks before the defense date. Please contact the department’s graduate secretary about student requirements for preparing this announcement for posting. Student credit for the thesis defense as one of three required student seminars requires: 1) proper department notice to attend defense, and 2) majority of department students attending final defense. Violations of these requirements and timelines will result in a postponement of the student’s defense at the student’s expense.

B. Time Limit for completion of the Doctoral Degree

Graduate degree completion time includes all final sign-off processes by all University officials regarding the student oral defense and approval of their completed written dissertation. Getting this process completed in a timely matter is the student’s responsibility.

Official University policy stipulates a maximum of 7 years from their first date of entry in graduate school to 100% completion of the Ph.D. degree with all sign-offs.

Pharmaceutics department policy requires that all delinquent students will be requested to perform any or all of the following actions if they have not finished their degree requirements after 7 years from their program entry date:

* Retake the qualifying exam per normal routines
* Orally defend their thesis again in official form
* Re-register and pay for credits in the semester they intend to complete their degree, defend again or submit their dissertation for final consideration;
* Be dismissed from the graduate program without receiving a degree.

This is based on the academic premise that all thesis research is dated, and therefore, that prompt timely oral disclosure and written peer-reviewed publication in the public domain is both expected and required for Ph.D. degree completion.

C. Orderly student dismissal based on sub-optimal performance and failure to progress
Research creativity, consistent productivity, evident progress and motivation are the hallmarks of successful graduate student performance. Those students who perform in their academics and research generally succeed and proceed expeditiously through the graduate program. Unfortunately, unsatisfactory student performance and progress in their graduate research program can result in their dismissal from the program and loss of stipend support. University policy 6-309 (http://www.regulations.utah.edu/academics/6-309.html, Section D Orderly Dismissal) provides a basis for this evaluation and dismissal process. Section III.D.1 states:

“Performance Evaluation. Any person appointed according to the provisions of this section may be dismissed for cause. The individual’s designated supervisor shall provide timely informal evaluations of the individual’s job performance and make conscientious efforts to assist the individual to correct any unsatisfactory aspects of job performance. If unsatisfactory aspects of job performance persist, the supervisor must provide the individual with a written statement of difficulties and a reasonable time in which to correct them.”

The Department faculty reserves the right to dismiss students who, after notice of their suboptimal performance and deficiencies, fail to either perform to expected standards or to exhibit an acceptable trajectory of substantial improvement, effort and motivation. Department policy mandates that the student will be provided written notification of the advisor’s dissatisfaction and evidence for failure to progress or insufficient research performance. Upon meeting with the advisor, the student shall sign this written notice, acknowledging the meeting’s occurrence (whether they agree with the assertions or not) and this document will be placed in their graduate file. The student can lodge a protest with their supervisory committee first, then the Chair, and also use the University’s appeal process (http://www.regulations.utah.edu/academics/6-400.html) if desired to counter these assertions. Following this meeting, the student will be given a 6-week probationary period to change their performance as prescribed and produce tangible evidence of improvement and productivity. A second student-advisor meeting at this 6-week timepoint will produce a second written evaluation of the student’s performance and evidence asserting either improvements, further concerns or non-improvements as evidence of failure to progress. Another second 6–week period will be the final evaluation period. At termination of 12 weeks, the student is provided a written permission from the advisor to continue in their specific research program or for dismissal from that advisor/mentor’s group based on specific cited criteria for poor productivity, poor performance, sub-optimal motivation or failure to progress. The student can remain in the department’s graduate program, but without support/stipend, as long as they remain in good academic standing, but must find another willing faculty mentor to produce a qualified research project that satisfies department graduate program requirements in order to finish their degree. This policy does not supercede current student rights accorded by the University’s Policy and Procedures Manual (PPM), and its references to student participation in formal Family Leave or Medical leave policies and procedures.

IX. FINAL GRADUATE CHECK OUT PROCEDURES

Graduating Ph.D. students are required to submit three final copies of their dissertation to the Thesis Office. To this end, they should first make all corrections mandated by their supervisory committee and give the corrected copy of the dissertation to the chair of their supervisory committee for final review. If the committee chair is satisfied with the dissertation, he/she will sign the Final Reading Approval Form (http://www.gradschool.utah.edu/students/forms/doctoral/oral.pdf) and forward the dissertation to the Department Chair for review. The student should allow two weeks for each of these reviews. Once the Final Reading Approval Form has been signed by both the chair of the supervisory committee and the Department Chair, the student then submits the dissertation and the Final Reading Approval Form to the Thesis Office for format check. Format check may take a
week or more depending on the Thesis editors’ workload. Please check the Thesis Office website (http://www.gradschool.utah.edu/students/doctoral_calendar.php) for exact filing deadlines for graduation in a particular semester. Once the dissertation has passed successfully through format check, the student should then pay to produce two final copies on archive bond paper (note: the Marriott Library will bind these hardcopies for the student on arrangement) and submit them to the 1) the Department Chair, and 2) the student’s supervisor/PI. The final fully approved electronic .pdf dissertation file must be submitted to the Thesis Office for dissertation release in electronic form.

Additionally, graduates must provide any member of their degree committee who requests it, a hard or e-copy of their final, corrected and University-accepted dissertation, although this final form is up to the committee member. Additionally, individual faculty may have their own group policies that require additional dissertation copies to be furnished after successful thesis defense.

Students must also return all intellectual property (i.e. data, spectra, chemicals, apparatus, disks, notebooks and all other devices and equipment being utilized in the research project associated with their research at the University of Utah) to their research advisor: **by university policy for sponsored research, none of this can be taken from University property.** NOTE: All department keys are university property and are to be returned to the department at student completion and exit. All safety hazards and hazardous substances in the student’s possession from research use must be responsibly identified and passed to the research advisor prior to exit. The student is required to complete an informational exit form from the department (including the student’s forwarding address, termination dates for payroll, and other information needed for the department’s annual report). This can be obtained from the Department when turning in the final bound thesis copy.

Students who fail to comply with these requirements or who fail to complete the departmental exit form, may, at the behest of their advisor or department chair, have their transcripts put on hold at the Registrar’s Office and/or will not have completed their degree requirements and will not receive their degrees until all degree requirements, including proper check out procedures from the department and research group are met.

**Requesting letters of recommendation from university sources (FERPA):** The Family Educational Rights and Privacy Act of 1974 (FERPA), sets forth the privacy requirements for student academic records. The University has a web page describing the Act, and the responsibilities of faculty and staff to safeguard information contained in student records. (http://www.sa.utah.edu/regist/ferpa/faculty/guide.htm ) An important procedural element to comply with FERPA is that all **students must formally grant written permission to release information pertaining to grades, GPA, or class rank.** A sample release form is provided on the FERPA web page referenced above and also as an appendix to this handbook. To comply with FERPA, **all students must complete and sign a release form** if they or the faculty anticipate the disclosure of protected information for any outside request. This includes letters of recommendation that contain information disclosed on the student formal academic record (e.g., GPA, transcript, class grade or rank, formal class records). This form should be filed BOTH with the faculty or staff letter-writer and also placed in the student’s official file in the Department office. From that point forward, **students need only notify** that faculty if additional letters are to be provided. Email documentation in this regard is sufficient, as long as it is clear that the student wishes letters of recommendation to be provided, and provides contact information to send those letters. If formal academic or confidential records information is **not to be disclosed**, then the FERPA release is **not necessary.** Nevertheless, faculty should always exercise good judgment about disclosing any personal information provided in evaluation and recommendation letters.
X. ACADEMIC MISCONDUCT

All students matriculated at the University of Utah have specific rights and important professional responsibilities and expectations. The purpose of this document and the associated department academic integrity pledge is to inform students of these rights and responsibilities, as well as due process for accusations of violations of policy and procedure. Please refer to Policy 6-400: Code of Student Rights and Responsibilities (last accessed January 18, 2012), here forth referred to as “Student Code”.

Academic standards for all students in Pharmaceutics and Pharmaceutical Chemistry:

1. GPA of 3.0 or higher must be maintained.
2. Students must earn a grade of B- or higher in all core and elective courses. Core courses with lower grades than B- must be repeated.
3. Laboratory rotations, when applicable, must be satisfactorily completed.
4. The Department has a ‘zero tolerance’ policy for academic misconduct. To this end, students are expected to sign the Department’s academic integrity pledge (provided at end of this section) upon matriculation, in which they pledge to conduct their graduate studies in a manner consistent with academic integrity in thought and deed, in coursework and in research. Students should be particularly aware of the implications and consequences of plagiarism and data falsification. Dishonesty or misconduct is defined by the National Academy of Sciences, the University of Utah Student Code, or this policy statement. Cheating, plagiarism, and other forms of academic dishonesty are defined below. Academic integrity in all work associated with your degree program (i.e., didactic coursework, research, representation of the university as a professional scientist) is expected.

Action will be taken in cases of failure to meet academic standards that may include grade reduction, failing grade, probation, or dismissal from the University. Note that several students have been expelled from the University of Utah in recent years for academic honesty violations. In other words, this situation is not to be taken lightly. There are expectations and due process associated with academic integrity and professional conduct as a graduate student.

DEFINITIONS

National Academy of Sciences Definition of Misconduct in Science:

*Misconduct in science is defined as fabrication, falsification, or plagiarism, in proposing, performing, or reporting research. Misconduct in science does not include errors in the recording, selection, or analysis of data; differences in opinions involving the interpretation of data; or misconduct unrelated to the research process.*

Definitions as used in the Student Code (see Section 1.B):

A. "Academic action" means the recording of a final grade (including credit/no credit and pass/fail) in a course, on a comprehensive or qualifying examination, on a culminating project, or on a dissertation or thesis. It also includes a decision by the appropriate department or college committee to place a student on academic probation, or to suspend or dismiss a student from an academic program because the student failed to meet the relevant academic standards of the discipline or program. Academic action does not include academic sanctions
imposed for academic dishonesty or for specific violations of professional and ethical standards of the profession or program for which the student is preparing.

B. "Academic dishonesty" includes, but is not limited to, cheating, misrepresenting one's work, inappropriately collaborating, plagiarism, and fabrication or falsification of information, as defined further below. It also includes facilitating academic dishonesty by intentionally helping or attempting to help another to commit an act of academic dishonesty.

1. "Cheating" involves the unauthorized possession or use of information, materials, notes, study aids, or other devices in any academic exercise, or the unauthorized communication with another person during such an exercise. Common examples of cheating include, but are not limited to, copying from another student's examination; submitting work for an in-class exam that has been prepared in advance; violating rules governing the administration of exams; having another person take an exam; altering one's work after the work has been returned and before resubmitting it; violating any rules relating to academic conduct of a course or program.

2. Misrepresenting one's work includes, but is not limited to, representing material prepared by another as one's own work; submitting the same work in more than one course without prior permission of both faculty members.

3. "Plagiarism" means the unacknowledged use or incorporation of any other person's work in, or as a basis for, one's own work offered for academic consideration or credit, or for public presentation. Plagiarism includes, but is not limited to, representing as one's own, without attribution, any other person's words, phrasing, ideas, sequence of ideas, information or any other mode or content of expression. It does not include honest error.

4. "Fabrication or falsification" includes reporting experiments or measurements or statistical analyses never performed; manipulating or altering data or other manifestations of research to achieve a desired result; falsifying or misrepresenting background information, credentials or other academically relevant information; and selective reporting, including the deliberate suppression of conflicting or unwanted data. It does not include honest error or honest differences in interpretations or judgments of data and/or results.

C. "Academic misconduct" includes academic dishonesty, violations of the professional or ethical standards for the profession or discipline for which the student is preparing or other specific misconduct that demonstrates unfitness for such profession or discipline.

D. "Academic sanction" means a sanction imposed on a student for engaging in academic misconduct. It may include, but is not limited to, requiring a student to retake an exam(s) or rewrite a paper(s), a grade reduction, a failing grade, suspension or dismissal from the program or the University. It may also include notification of the appropriate professional or licensing body of the profession or discipline for which the student is preparing.

More on Plagiarism:

Copying verbatim from some source without demarking the text is considered to be plagiarism. If copying word-for-word from a source (textbook, literature, web, thesis, etc.), short phrases should be put in quotes, followed by the source. Longer phrases (couple of sentences) should be indented, followed by the source. Copying verbatim of large sections of text from other sources is discouraged. Use of material that constitutes "common knowledge" may not require citation but this must be carefully considered. Graphics, figures, schemes, and tables published by others may be
used with appropriate citation and attribution (and also with permission of the publisher where required). *It is safer to attribute graphic, tables, definitions and technical descriptions to previously published work as formal citations.* Wikipedia and many other web-based resources are not peer-reviewed, validated sources of technical or scientific information and should not be cited as primary sources. All URL sourcing should include the full URL address and date accessed. When in doubt about plagiarism, please ask the advice of the instructor in charge of the class.

Plagiarism also can occur in seminars. Sometimes a student will present data or a diagram in a seminar that is not his/her own work, and not reference where the data comes from. This is also a form of plagiarism.

**Consequences of Academic Misconduct**

The University Student Code allows some flexibility on consequences. In particular it states that sanctions *"including but not limited to a grade reduction, failing grade, probation, suspension or dismissal from the program or the University, or revocation of the student’s degree or certificate"*

Regarding sanctions that can be imposed by an individual faculty member who observed misconduct in his/her course(s), the University Student Code states that *"Such sanctions may include requiring the student to rewrite a paper(s) or retake an exam(s), a grade reduction, a failing grade for the exercise, or a failing grade for the course. In no event shall the academic sanction imposed by the faculty member be more severe than a failing grade for the course."* More serious sanctions (e.g., "suspension or dismissal from the program or the University") require more levels of due process: *"If the faculty member, chair or vice president believes that the student’s academic misconduct warrants an academic sanction of probation, suspension or dismissal from a program, suspension or dismissal from the University, or revocation of a student’s degree or certificate, he/she may, within thirty (30) business days of receiving notice of the misconduct, prepare a complaint with recommendations, refer the matter to the chair or dean’s designee of the student’s home department or college, and notify the student of the complaint and recommendation. The chair and/or dean’s designee of the home department/college may undertake an investigation of the allegations and recommendations set forth in the complaint. Within ten (10) business days of receipt of the complaint, the chair and/or dean’s designee shall forward the complaint and recommendation to the Academic Appeals Committee of the home college for proceedings in accordance with Section C, below, and so notify the student in writing."*

Section V of the **Student Code** covering student academic conduct is included below in its entirety for your perusal. This document serves to inform all graduate students in the Department of Pharmaceutics and Pharmaceutical Chemistry of their rights and responsibilities in their academic conduct.

A. **Standards of Academic Conduct**

   In order to ensure that the highest standards of academic conduct are promoted and supported at the University, students must adhere to generally accepted standards of academic honesty, including but not limited to refraining from cheating, plagiarizing, research misconduct, misrepresenting one’s work, and/or inappropriately collaborating.

B. **Academic Misconduct**

A student who engages in academic misconduct as defined in Part I.B. may be subject to academic sanctions including but not limited to a grade reduction, failing grade, probation, suspension or dismissal from the program or the University, or revocation of
the student’s degree or certificate. Sanctions may also include community service, a written reprimand, and/or a written statement of misconduct that can be put into an appropriate record maintained for purposes of the profession or discipline for which the student is preparing.

1. Any person who observes or discovers academic misconduct by a student should file a written complaint with the faculty member responsible for the pertinent academic activity within thirty (30) business days of the date of discovery of the alleged violation.

2. A faculty member who discovers or receives a complaint of misconduct relating to an academic activity for which the faculty member is responsible shall take action under this code and impose an appropriate sanction for the misconduct.

3. Upon receipt of a complaint or discovery of academic misconduct, the faculty member shall make reasonable efforts to discuss the alleged academic misconduct with the accused student no later than twenty (20) business days after receipt of the complaint, and give the student an opportunity to respond. Within ten (10) business days thereafter, the faculty member shall give the student written notice of the academic sanction, if any, to be taken and the student’s right to appeal the academic sanction to the Academic Appeals Committee for the college offering the course. Such sanctions may include requiring the student to rewrite a paper(s) or retake an exam(s), a grade reduction, a failing grade for the exercise, or a failing grade for the course. In no event shall the academic sanction imposed by the faculty member be more severe than a failing grade for the course.

4. If the faculty member imposes the sanction of a failing grade for the course, the faculty member shall, within ten (10) business days of imposing the sanction, notify in writing, the chair of the student’s home department and the senior vice president for academic affairs or senior vice president for health sciences, as appropriate, of the academic misconduct and the circumstances which the faculty member believes support the imposition of a failing grade. If the sanction imposed by the faculty member is less than a failing grade for the course, the faculty member should report the misconduct to the dean or chair of the student’s home department or college. Each college shall develop a policy specifying the dean and/or the chair as the appropriate person to receive notice of sanctions less than a failing grade for the course.

5. A student who believes that the academic sanction given by the faculty member is arbitrary or capricious should discuss the academic sanction with the faculty member and attempt to resolve the disagreement. If the student and faculty member are unable to resolve the disagreement, the student may appeal the academic sanction to the Academic Appeals Committee for the college offering the course within fifteen (15) business days of receiving written notice of the academic sanction.

6. If the faculty member, chair or vice president believes that the student's academic misconduct warrants an academic sanction of probation, suspension or dismissal from a program, suspension or dismissal from the University, or revocation of a student's degree or certificate, he/she may, within thirty (30) business days of receiving notice of the misconduct, prepare a complaint with recommendations, refer the matter to the chair or dean’s designee of the student’s home department or college, and notify the student of the complaint and recommendation. The chair and/or dean’s designee of the home department/college may undertake an investigation of the allegations and recommendations set forth in the complaint. Within ten (10) business days of receipt of the complaint, the chair and/or dean’s designee shall forward the complaint and recommendation to the Academic Appeals Committee of the home college for proceedings in accordance with the procedures outlined in the Handbook.
with Section C, below, and so notify the student in writing. The chair and/or dean may accompany the complaint with his/her own recommendation supporting or opposing the sanction sought in the complaint. The person initiating the original complaint continues as the complainant in the case unless that person and the chair/dean’s designee both agree that the latter shall become the complainant. If the student has appealed the academic sanction imposed by the faculty member, the time periods set forth in this paragraph may be extended until ten (10) business days after the resolution of the student’s appeal.

7. If a department chair, the dean, the senior vice president for academic affairs and/or the senior vice president for health sciences, become aware of multiple acts of academic misconduct by a student, they or their designees may, within thirty (30) business days after receiving notice of the last act of misconduct, prepare a complaint with recommendations for probation, suspension or dismissal from a program, suspension or dismissal from the University, or revocation of a degree or certificate, and refer the matter to the Academic Appeals Committee of the student’s home college for proceedings in accordance with Section C, below, and so notify the student in writing.

C. Proceedings Before the Academic Appeals Committee

1. Written Complaint and Recommendations or Appeal. The written complaint and recommendations or the written appeal shall be delivered to the chair of the Committee, with a copy to the other party.

2. Response to Complaint and Recommendations or Appeal. The person responding to the complaint and recommendations or the appeal may deliver his/her response to the chair of the Academic Appeals Committee, with a copy to the other party, no later than five (5) business days after receipt of the complaint and recommendations.

3. Makeup of the Committee. The dean of each college shall ensure that an Academic Appeals Committee is constituted according to college procedures, subject to the following parameters. Two faculty members shall come from the college. The Personnel and Elections Committee of the Academic Senate shall appoint one faculty member from outside the college. The faculty members shall be appointed to the Committee for staggered three-year terms. The dean shall appoint two undergraduate student members and two graduate student members who are either from the relevant Student Advisory Committee or listed as a major within the college. Undergraduate student and graduate student members will be appointed for staggered two-year terms. No more than one faculty member and two Committee members in total may come from the same department in a multi-department college. The members of the Committee who shall hear the case are the three faculty members and the two students from the peer group of the student accused of academic misconduct (i.e., undergraduates or graduates). The dean shall designate one of the faculty members to serve as chair of the Committee. The Committee shall establish internal procedures consistent with the Student Code.

4. Conflicts of Interest. Upon written request of one of the parties or Committee members, the dean may excuse any member of the Committee if the dean determines that the member has a conflict of interest. The dean shall select an appropriate replacement for the excused member (i.e., student or faculty member).

5. Scheduling Hearings Before the Committees. When a complaint and recommendations or an appeal, together with a response, are filed in a timely manner, the Committee chair shall schedule a hearing date if:
   a. The documents raise material issues of disputed fact;
   b. The Committee chair determines that a hearing is necessary or otherwise desirable to aid in the resolution of the issues; or
c. The possible sanctions against the student may include dismissal from the University, dismissal from a program, suspension from either for longer than ten (10) business days, or revocation of the student’s degree or certificate.

If the Committee chair determines that no circumstances exist that require a hearing, as provided above, the chair shall notify the student and the faculty member (the parties) in writing of this determination and convene a closed meeting of the Committee to consider the documentation submitted by the parties. The Committee chair shall prepare a written report of the Committee’s findings and recommendations and present it to the dean of the college, or designee, within ten (10) business days after the Committee meeting.

6. Notice of Hearings Before Committees. If the Committee chair determines that a hearing is required, the chair shall schedule a hearing date and notify the parties in writing of the date of the hearing, the names of the Committee members, and the procedures outlined below at least fifteen (15) business days prior to the hearing.

7. Hearing Procedures. Hearings shall be conducted according to the following procedures:

a. Hearings shall be conducted within a reasonable time after the Committee’s receipt of the written complaint and recommendations or the written appeal, and the response.

b. At least five (5) business days prior to the date of the hearing, the parties shall make available to each other and to the Committee a list of their witnesses and a list of the documents to be offered at the hearing. In exceptional circumstances, the Committee may allow a party to call witnesses not listed or submit additional documents at the hearing.

c. The parties have a right to be accompanied by any person as advisor, including legal counsel, who will be permitted to attend, but not directly participate in, the proceedings.

d. Hearings shall be closed to the public.

e. All hearings, except Committee deliberations and voting, shall be recorded and a copy made available to any party upon request. Committee deliberations and voting shall take place in closed sessions.

f. The Committee must have a quorum present to hold a hearing. A quorum consists of three (3) members, including at least one (1) student and the faculty member from outside the college. If there is more than one hearing in a matter, or if the hearing continues over more than one session, the same three members must be present for all sessions. All findings and recommendations of the Committee shall require a majority vote of the Committee members present at the hearing.

g. At the hearing, the parties shall have the right to present questions to witnesses through the Committee chair, to present evidence and to call witnesses in their own behalf, in accordance with the Committee’s established internal procedures.

h. The Committee shall not be bound by strict rules of legal evidence or procedure and may consider any evidence it deems relevant.

i. University legal counsel shall serve as a resource to the Committee and may be present at the hearing to provide guidance on substantive law and procedural matters.

j. In the hearing, the Committee must determine, by a preponderance of the evidence, whether the student engaged in the alleged academic misconduct. If the Committee answers this question in the affirmative, the Committee may then recommend any academic sanction it deems appropriate under the
entire circumstances of the case, including but not limited to suspension or dismissal from the program or the University, or revocation of a student’s degree or certificate.

k. The Committee shall make its findings and recommendations based only on evidence and testimony presented by the parties at the hearing. Committee members shall not conduct their own investigations, rely on prior knowledge of the facts or develop their own evidence.

l. If either party presenting to the Academic Appeals Committee fails to attend the hearing without good cause, the Committee may proceed with the hearing and take testimony and evidence and report its findings and recommendations to the dean of the college, or designee, on the basis of such testimony and evidence.

m. The Committee chair shall prepare a written report of the Committee’s findings and recommendations and present it to the dean of the college, or designee, within ten (10) business days after the conclusion of the hearing. A report that recommends sanctions no more serious than a failing grade, shall be presented to the dean of the college offering the course. Reports recommending sanctions greater than a failing grade (e.g. suspension or dismissal) shall be presented to the dean of the student’s home college.

D. Review and Decision by the Dean or Designee

1. The dean of the college, or designee, shall consider the documentation submitted to the Committee and the findings and recommendations of the Committee in making a decision. Based upon such review, and without conducting further hearings, the dean of the college, or designee, shall, within ten (10) business days, take one of the following actions:
   a. For any recommendation other than dismissal or suspension from the University or revocation of a degree or certificate, accept the Committee’s findings and recommendations and impose the recommended sanctions;
   b. For a recommendation of dismissal or suspension from the University or revocation of a degree or certificate, concur with the Committee’s findings and recommendations and refer the matter with a confirming recommendation to the cognizant vice president for a decision;
   c. Return the report to the Committee chair, requesting that the Committee reconvene to reconsider or clarify specific matters, materials, and issues, and forward to the dean of the college, or designee, a second report of its findings and recommendations relating to the specific matters referred by the dean of the college, or designee, for further consideration. (If a report to the dean recommends sanctions greater than a failing grade and has originated from a Committee outside of the dean’s college, the dean may refer the matter to the chair of his/her own college Academic Appeals Committee for further review and recommendations.); or
   d. Reject all or parts of the Committee’s findings and recommendations, stating reasons and actions to be taken therefore. The dean may impose (or recommend to the cognizant vice president) a greater or lesser sanction than recommended by the Committee.

2. Written notification of the dean’s, or designee’s, decision shall be communicated to the parties, to the chair of the Academic Appeals Committee and to the cognizant senior vice president within ten (10) business days of receipt of the Committee’s findings and recommendations.

3. The dean’s, or designee’s, decision is final unless appealed to the cognizant senior vice president within ten (10) business days.
E. **Appeal to Cognizant Senior Vice President (or to the President when appropriate)**

Within ten (10) business days of receipt of the dean’s, or designee’s, decision, any party may appeal the decision by filing a written notice of appeal with the senior vice president for academic affairs or the senior vice president for health sciences, as appropriate, and delivering a copy to the other party. The other party may file a response to the appeal with the vice president within five (5) business days of receipt of the appeal. In the case of an appeal:

1. The vice president shall consider the appeal and response to the appeal, and may solicit whatever counsel and advice the vice president deems appropriate to arrive at a final decision. The vice president may also convene an ad hoc committee composed of students and faculty members from outside the college or department to determine if there were substantial defects that denied basic fairness and due process. After receiving the appeal, the vice president shall, within ten (10) business days, or within twenty (20) business days if an ad hoc committee is formed, take one of the following actions:
   a. Accept the decision of the dean of the college or his/her designee;
   b. Return the report to the dean of the college, or his/her designee, requesting that he/she clarify specific matters, materials and issues, and forward to the vice president a second report of his/her decision relating to the specific matters referred by the vice president for further explanation; or
   c. Reject all or parts of the dean’s, or designee’s, decision, stating reasons and actions for imposing a greater or lesser sanction than determined by the dean.

2. Written notification of the vice president’s decision and the basis for that decision shall be communicated to the parties, to the chair of the Academic Appeals Committee and to the dean within ten (10) business days after receipt of the appeal, or within twenty (20) business days after receipt of the appeal if an ad hoc committee is formed.

3. The decision of the vice president is final.

F. **Suspension or Dismissal from a Program or from the University, or Revocation of a Degree or Certificate**

The sanctions of suspension and dismissal and revocation for academic misconduct may be imposed: (1) if recommended by the Academic Appeals Committee to the dean; (2) if deemed appropriate by the dean notwithstanding the recommendation from the committee; or (3) by the cognizant vice president notwithstanding the decision (or recommendation) of the dean. A student who has been suspended or dismissed from the University shall be denied all privileges accorded to a student.

1. Suspension from a Program or from the University.
   a. Suspension shall be for a minimum time of one semester following the semester the student is found responsible for academic misconduct.
   b. The dean of the relevant college shall notify the student in writing of the suspension, conditions for reinstatement, and of the obligation of the student to petition for reinstatement.
   c. Petitions for reinstatement shall be submitted to the relevant dean and shall explain how the conditions for reinstatement have been met.
   d. The relevant dean shall consider the petition and shall issue a decision regarding the student’s reinstatement within fifteen (15) business days of receipt of the petition.
   e. The relevant dean may grant conditional reinstatement contingent upon the student meeting written requirements specified in the original sanction (e.g., minimum grade point average requirement, ineligibility to participate in specified student activities or on specified student committees).
f. The notice of the dates for which the student is suspended will remain on his/her transcript until he/she has been reinstated to the program or to the University, or for five (5) years if he/she is not reinstated to the program or to the University. [See Procedure 6-400-Sec.VII #1]

2. Dismissal from a Program or from the University.
   a. Dismissals from a program or from the University are final. A student dismissed from a program or from the University for academic misconduct may not petition for reinstatement.
   b. Permanent records of dismissal shall be kept in the office of the registrar.
   c. The dismissed student’s transcript will reflect his/her dismissal. [See Procedure 6-400-Sec.VII #1]
   d. Dismissal should be reserved for only the most egregious of offenses.

3. Revocation of a Degree or Certificate.
   a. Decisions to revoke a degree or certificate are final.
   b. Permanent records concerning the revocation of a degree or certificate shall be kept in the office of the registrar.
   c. The revocation of a degree or certificate shall be noted on the student’s transcript. [See Procedure 6-400-Sec.VII #1]
   d. Revocation of a degree or certificate should be reserved for only the most egregious of offenses.

G. Copies of Documents to Department Chair
   During the appeals process and at the time they are submitted, the following documents should be copied to the chair of the department considering the academic misconduct: the first written complaint and recommendations, the first written appeal, all subsequent appeals, all responsive documents, and all written recommendations or decisions made at each level of the appeal.

H. Programs That Do Not Report to Academic Deans
   In cases where a program does not report directly to an academic dean, the program director will serve as department chair, and the cognizant associate vice president will serve as dean for purposes of these proceedings. Any ambiguity concerning procedures set forth in this policy for courses offered in a program (e.g. determination of the relevant Academic Appeals Committee) shall be resolved by the program director, in consultation with the cognizant associate vice president, and in a manner that preserves the spirit and intent of this policy.

I. Implementation of Sanction for Academic Misconduct
   At the conclusion of the appeals process, the chair of the department or dean of the college considering the academic misconduct shall take appropriate action to implement the final decision. If the student is found responsible for academic misconduct, the chair or dean shall notify, in writing, the student’s department or program of study of the violation, the proceedings, and the final decision. If the sanction involves suspension or dismissal from a program or from the University or revocation of a degree or certificate, the chair or dean shall also convey the decision to the office of the registrar for notation on the transcript. [See Procedure 6-400-Sec.VII #1]

J. Reporting of Academic Misconduct
   No University employee shall provide information to a person or entity concerning a student’s academic misconduct without fully complying with The Family Educational Rights and Privacy Act (20 U.S.C.A. § 1232g) and the Government Records Access and Management Act (U.C.A. §63-2-101). In most circumstances, such as requests from a licensing body or an employer, information may only be provided with the prior written consent of the student. In some circumstances, however, such as requests from other institutions where the student seeks or intends to enroll, information may be
provided without the consent of the student but only after following appropriate procedures outlined in these statutes.

K. Other University Proceedings

If the filing of a complaint or an appeal relating to academic misconduct raises other issues concerning behavioral or professional misconduct, the cognizant senior vice president, or designee, the dean of students, and the involved University administrator shall determine the appropriate procedure(s) for processing the complaint or the appeal.

L. Retention of Records of Proceedings

Records of proceedings under the Student Code shall be confidential to the extent permitted by law. Records of academic misconduct shall be kept in the office of the registrar, and a copy may be retained in other academic departments as appropriate.

XI. Academic Standards, Integrity and Professional Conduct Pledge for All Students in the Department of Pharmaceutics and Pharmaceutical Chemistry

I acknowledge that I have received a copy of the Academic Standards Policy for Students in the Department of Pharmaceutics and Pharmaceutical Chemistry, and that it is my responsibility to read and understand this statement and to follow the rules described for academic conduct. I also acknowledge and agree that it is my responsibility to ask questions about anything I do not understand.

I pledge to follow the Honor Code below and to obey all rules for (1) taking exams and performing homework assignments as specified by the course instructor; (2) taking the Department’s written comprehensive exam as specified by the Department’s comprehensive exam coordinator; (3) undertaking the duties of a Teaching Assistant for any specified course; (4) taking the Department’s preliminary exam (research proposal defense) as specified by the chair of my preliminary exam committee; and (5) writing and defending my M.S. thesis and/or Ph.D. dissertation. I understand that when asked to follow the Honor Code on exams, homework, other assignments, comprehensive exam, preliminary exam, and writing and defending my M.S. thesis and/or Ph.D. dissertation, I must follow the rules below:

1. In my classwork, I will work entirely alone on homework assignments and examinations, and will NOT plagiarize text from any other person’s work. I will NOT share information about any aspect of the exam with other students, other faculty members, or other scientists. I will direct all questions concerning the exam or homework/assignment to the course instructor or teaching assistant. All work I submit for my grading shall be a product of my own creation, analysis, formulation and thinking, and all work otherwise assisted by others shall be so designated clearly in writing.

2. As a teaching assistant I will only divulge information necessary for the student’s understanding of a specific question on the exam (as opposed to information that directly provides the answer). In order to maintain fairness, I will provide any such information to other students as well. If I am in doubt about such questions, I will consult the course instructor for clarification.

3. For my comprehensive exam, I will work entirely alone on the assigned questions and will NOT plagiarize text from any other person’s work. I will NOT share information about my comprehensive exam questions with other students at ANYTIME while enrolled as a graduate student in the Department. I will direct all questions concerning the exam to the Department’s comprehensive exam coordinator. All work I submit for my grading shall be a product of my own creation, analysis, formulation and thinking, and all work otherwise assisted by others shall be so designated clearly in writing.

4. For my preliminary exam, I will write the proposal entirely on my own and will NOT plagiarize text from any other person’s work. I will direct all questions concerning the exam
to the chair of my preliminary exam committee. All work I submit for my grading shall be a product of my own creation, analysis, formulation and thinking, and all work otherwise assisted by others shall be so designated clearly in writing.

5. I understand that all student work for coursework assignments and dissertation research must conform with University and department plagiarism policies.

6. I understand that plagiarism is grounds for dismissal from the department, program, and university.

7. In addition, I realize that professional conduct and integrity also extend to all of my research work, my representation of scientific data and results, my interpretation of results, and my professional descriptions of data and results as they are published in the peer-review literature. This process has been described in National Academy of Science definitions and descriptors that I have read and understood.

8. In writing and defending my M.S. thesis and/or Ph.D. dissertation I will NOT fabricate or falsify my data, misrepresent my work, or plagiarize text from any other person’s work.

9. I understand that it is my responsibility to obtain clarification from the Department’s director of graduate studies or other cognizant faculty member if there are questions concerning the requirements of the Honor Code, and my rights and responsibilities as a student enrolled at the University of Utah.

Student signature:________________________________________

Student name (print):______________________________________

Date:_____________________________

XII. Index of Required Graduate Student Forms

1. Graduate School

Ph.D. Program Calendar:
http://www.gradschool.utah.edu/students/doctoral_calendar.php

Request for Supervisory Committee:
http://www.gradschool.utah.edu/students/forms/supervisory.pdf

Report of Qualifying Examination and Recommendation for Admissions to Candidacy:
http://www.gradschool.utah.edu/students/forms/doctoral/qualifying.pdf

Program of Study, Part 1:
http://www.gradschool.utah.edu/students/forms/doctoral/program_1.pdf

Program of Study, Part 2:
http://www.gradschool.utah.edu/students/forms/doctoral/program_2.pdf

Report of Final Oral Examination:
http://www.gradschool.utah.edu/students/forms/doctoral/oral.pdf

Petition for Consideration of Exception to Policy:
http://www.gradschool.utah.edu/students/forms/exceptionpetition.pdf

Request for Leave of Absence
http://www.gradschool.utah.edu/students/forms/leave.pdf

Request to Change Supervisory Committee Personnel
http://www.gradschool.utah.edu/students/forms/changecommittee.pdf
2. Departmental
Departmental Doctoral Dissertation Defense Clearance Form
Masters Thesis Defense Clearance Form

3. Thesis Office
• A Handbook for Theses and Dissertations
• Permission to Quote Copyrighted Material – Doctoral Dissertation
  http://www.gradschool.utah.edu/thesis/forms/permission_phd.pdf
• Permission to Quote Copyrighted Material – Masters Thesis
  http://www.gradschool.utah.edu/thesis/forms/permission_ms.pdf
• Multiple Author Release – Doctoral Dissertation
• Multiple Author Release – Masters Thesis
  http://www.gradschool.utah.edu/thesis/forms/release_ms.pdf
• Supervisory Committee Approval and Final Reading Approval – Doctoral Dissertation
  http://www.gradschool.utah.edu/thesis/forms/signature_phd.pdf
• Supervisory Committee Approval and Final Reading Approval – Masters Thesis
  http://www.gradschool.utah.edu/thesis/forms/signature_ms.pdf

Appendices:
• Department M.S. degree defense clearance form (check-sheet)
• Department Ph.D. degree defense clearance form (check-sheet)
• Safety memorandum example
• Annual student supervisory committee review sign-off form
• Student research seminar evaluation form

NOTE: While some content herein is recommendation for best practices as a graduate student in the Department, other university and department policies described in this Handbook are intended to be read, understood and followed by all department graduate students. Violations of university and department policies are grounds for immediate dismissal from the program.
Appendix: PHCEU Courses offered

The following courses, all bearing the department’s PHCEU course identifier, are specifically directed towards pharmaceutics graduate students and professional pharmacy students as indicated (note that courses outside of the Core Course series might not be offered regularly):

5125 Dosage Forms and Drug Delivery Systems (4 credits) Physicochemical approach to stability and performance of pharmaceutical dosage forms. Mathematics, thermodynamics, colligative properties, solubility, chemical equilibrium and kinetics. Emphasis on interfacial phenomena as applied to pharmaceutical dosage forms including suspensions, emulsions, creams, ointments, and advanced delivery systems.

5611 Practical Aspects of Intravenous Drug Delivery (1 credit) Course will teach professional pharmacy students technical and physiologic issues that are important to understand and consider when administering drugs by intravenous infusion.

5880 Journal Club in Pharmaceutics (1 credit) Reports from current pharmaceutics and related literature.

5960 Special Problems in Pharmaceutics (1-3 credits) Conferences, library, and laboratory work by arrangement.

5980 Faculty Consultation (1 credit) Prerequisite: Professional Pharmacy Student.

6020 Biomaterials (3 credits) Cross listed as BIOEN 6032. Chemical, physical, and biological properties of synthetic polymer, metal, and ceramic biomaterials. Relationship between the structure of biomaterials and their interaction with blood, soft, and hard tissue. Mechanical properties, fabrications, and degradation mechanisms, and performance testing of materials in biomedical use.

6612 Clinical Research and Drug Development: From Molecule to Market (1 credit) This is an elective course for pharmacy students which will review the process of new drug development and expose students to the opportunities that exist with in the pharmaceutical industry for people with pharmaceutical training and expertise. This course will review in a general manner of what is required to take a new drug entity, a molecule, from discovery through to the market with and emphasis on clinical research aspects.

6880 Journal Club in Pharmaceutics (1 credit) Reports from current pharmaceutics and related literature.

6890 Research Seminar (1 credit) Seminar on personal research or assigned literature surveys.

6970 Thesis Research: Master’s (1-12 credits)

6980 Faculty Consultation: Master’s (3 credits) Arranged as needed by master’s candidates.

Core courses: (7010, 7020, 7021, 7030, 7040)

7010 Molecular Biology for Pharmaceutical Scientists (1.5 credits) Prerequisite: Graduate Standing. This course will review fundamental aspects of genetic engineering and molecular biology, with application to health sciences.
7011 Pharmacokinetic Modeling (1.5 credits) Prerequisite: PHCEU 7010, or Special Permission from Instructor. This course will review fundamental aspects of pharmacokinetics with emphasis on understanding concepts for compartmental and non-compartmental modeling, physiologic modeling, and modeling of targeted drug delivery systems. The goal of the course is to understand how these techniques can be used to optimize drug delivery.

7020 Advanced Physical Pharmacy and Drug Formulations (4 credits): Prerequisite: Graduate student status or instructor consent and CHEM 7050. Physicochemical fundamentals of pharmaceutical systems, dosage forms, and formulation stability and design. Molecular thermodynamics approach to establishing principles of solutions, solubility, structures of liquids, solids, and surfaces, permeation, partitioning, and aggregation, complexation, ion-solvent interactions, and principles of colloid and interfacial sciences applied to pharmaceutical systems.

7021 Dosage Forms and Drug Delivery Systems (2 credits) Physicochemical approach to stability and performance of pharmaceutical dosage forms. Mathematics, thermodynamics, colligative properties, solubility, chemical equilibrium and kinetics. Emphasis on interfacial phenomena as applied to pharmaceutical dosage forms including suspensions, emulsions, creams, ointments, and advanced delivery systems.

7030 Macromolecular Therapeutics and Drug Delivery (4 credits) Prerequisite: Graduate student status or instructor consent and CHEM 7050. Introduction to polymer in Pharmaceutics and drug delivery. Transport phenomena in drug delivery systems. Macromolecular and vesicular carriers. Biorecognition and drug targeting. Protein, oligonucleotide, and gene delivery systems.

7031 Lipid-based Drug Delivery Systems (0.5-2 credits) Prerequisite: Graduate student status and PHCEU 7030, or instructor consent. Introduction to lipid systems in Pharmaceutics and drug delivery. Emulsions, micellar, and vesicular carriers. Biorecognition and drug targeting of small molecule, protein, and nucleic acid therapeutics.

7040 Biotechnology (4 credits) Prerequisite: Graduate student status or instructor consent and one differential equations course. Biophysical chemistry of proteins and nucleic acids, with special emphasis on biopharmaceuticals (i.e., therapeutic macromolecules). In particular, the structure, energetics, and function of proteins and nucleic acids. Specific topics: peptide and protein structure, nucleotide and nucleic acid structure, protein folding, protein-ligand interactions, ligand binding kinetics, enzyme kinetics, and nucleic acid interactions. Methods used for studying these topics will also be discussed and explored in a practical training environment.

7055 Integrated Drug Development Process in Pharmaceutical Industry (1.5 credits) This course covers drug candidate selection, Form selections (salt/polymorph), Preformulation, Dosage form Design, Dosage from strategy, Formulation evaluation, Equipment and processing, Formulation and process optimization, scale-up and validation.

7095 Molecular Modeling and Biomolecular Simulation from a Pharmaceutical Perspective (2 credits) Cross listed as MD CH 7095. This survey course, including a hands-on component, will cover computational and simulation methods for understanding the structure, dynamics and interactions of biological molecules with an emphasis on topics relevant to therapeutic design, delivery and disposition. Possible topics will include molecular modeling, atomistic simulation, molecular docking, drug design, ADMA, homology modeling, high performance computing, and protein structure prediction. We will first review fundamental principles of molecular interaction then survey various modeling approaches to highlight their ranges of applicability and limitations. Experience with computers is desirable for the laboratory component.  

7110 Molecular Imaging (2 credits) Prerequisite: General Chemistry. This elective will
introduce the concepts and principles of molecular imaging and its application for Pharm.D. and Ph.D. students. The course will prepare students familiar with basic physics of clinical imaging modalities. The main focus of the course will be imaging probes or contrast agents used for these imaging modalities and their applications.


7220 Pharmaceutical Applications of Colloid and Interfacial Science (2 credits) Cross-listed as BIOEN 7130. Prerequisite: Graduate student status or instructor consent and PHCEU 7020. Colloid, interfacial, and electrokinetic theories applied to the design of drug formulations, drug delivery, and therapeutic efficacy.

7230 Nanomedicine (3 credits) Cross-listed with BIOEN 6405. Principles of nanofabrication, characterization and biomedically relevant behaviors for nanomaterials translated from concept to clinic. Nanoscience applications to medicinal, therapeutic and diagnostic systems are used to produce distinctions of nano-size properties in therapeutic, imaging and physiological exposure to medical testbeds, both in vitro and in vivo are emphasized. Cellular interactions, toxicity, biodistributions, and special topics in nanobiosensors, nanofluidics, polymer-therapeutics and commercial nanomedicine products are emphasized. This course qualifies as an elective for the Nanotechnology Graduate Program and potentially other UU graduate programs.

7315 Biopharmaceutics and Pharmacokinetics (2 credits) Prerequisite: Doctor of Pharmacy student, or graduate student status, or instructor consent. Characterization of the time course of drug absorption, distribution, metabolism, and excretion. The relationship to intensity and time course of drug effects. Design of dosage regimens in selected disease states. Role of pharmacokinetics involved in individualized drug therapy.

7316 Applied Clinical Pharmacokinetics (2 credits) Prerequisite: Professional Pharmacy Student. Application of principles of pharmacokinetics and pharmacodynamics to the individualization of pharmacotherapy.

7420 Delivery of Macromolecular Therapeutic Agents (2 credits) Prerequisite: Graduate student status and PHCEY 7010 and 7020. Applying physicochemical principles to the delivery of macromolecular therapeutic systems including antisense-mediated gene inhibition and gene therapy.

7430 Analytical Techniques (2 credits) Prerequisite: Graduate student status and PHCEU 7020. Applying fundamental bioorganic, analytical, and surface chemistry to the development of biosensors for drug and metabolite analysis.

7510 Pharmacokinetic Approaches to Drug Delivery (2 credits) Design and analysis of pre-clinical pharmacokinetic and pharmacodynamic studies.

7530 *Animal Studies and Human Subjects in Pharmaceutical Research* (2 credits) Prerequisite: Graduate Status and PHCEU 7010. Surgical techniques to evaluate absorption, metabolism, pharmacokinetic and pharmacodynamic characteristics of drug formulations for pre-clinical studies.

7890 *Research Seminar in Pharmaceutics* (1 credit) Seminar on personal research or assigned literature surveys.

7950 *Research Clerkship* (6 credits) Prerequisite: Professional Pharmacy student. Six-week research rotation involved in clinical, experimental, and analytical research. Students must obtain instructor approval to register.

7960 *Special Problems in Pharmaceutics* (1-3 credits) Conferences, library, and laboratory work as arranged.

7970 *Thesis Research: Ph.D.* (0.5-12 credits)

7975 *Journal Club in Pharmaceutics* (1) Critical evaluation and student-centered analysis of reports from current pharmaceutics, emerging topics of relevance, and related literature.

7980 *Faculty Consultation: Ph.D.* (3 credits) Arranged as required by graduate students.

7990 *Continuing Registration: Ph.D.* (0 credits)