

Department of Drug Discovery and Development Graduate Student Handbook

(Updated 8/20/2018)



AUBURN

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Department Mission

The Department of Drug Discovery and Development (DDD) within the Harrison School of Pharmacy (HSOP) comprises faculty, students, and staff that are committed to improving the quality of health through pharmaceutical sciences education and research. Our philosophy in supporting a professional curriculum of pharmacy education empowers students in active learning and helps produce graduates that are life-long, science-based learners; possessing a fundamental knowledge base that is vital for advancing clinical practice and associated research. We equally shoulder the responsibility for developing the next generation of pharmaceutical and biomedical sciences scholars by designing and implementing curricula that enable students to excel during their graduate education, acquire high-level post-graduate training, and launch successful careers in academia or industrial biomedical and/or pharmaceutical research. We strive to conduct state-of-the-art research that: is marked by innovative use of models, techniques, and approaches; facilitates interdisciplinary collaborations; is impactful to the fields of medicinal chemistry, pharmaceuticals, and pharmacology; and fosters clinical translation.

Our department seeks diversity in its culture and is committed to the Auburn University vision of an open, diverse and inclusive professional, academic and social environment. We strive for excellence in all our endeavors, provide local academic leadership, serve as a regional resource for colleagues and the public at large, and maintain a national and international presence based on the reputations of our faculty, students, and programs.

Faculty Profiles

Tim Moore, MD, PhD, Professor and Department Head

(University of South Alabama College of Medicine, 1996). Dr. Moore came to Auburn after spending the previous seven years at the National Institutes of Health/National Heart, Lung, and Blood Institute (NIHLBI) as a Medical Officer and Chief of the Lung Biology and Disease Branch of the Division of Lung Diseases. He also held the positions of Director of the NHLBI Science Moving Towards Research Translation and Therapy Program (SMARTT) and was the Director of the Lung Cell/Vascular Biology Program. Areas of interest include drug discovery and translational research as well as lung vascular biology and disease.

Raj Amin, PhD, Associate Professor

(Wayne State University, 2003). Current research focuses upon mitochondrial remodeling associated with diabetes. Drug discovery focuses upon developing novel compounds and tools for mitigating mitochondrial energy dysregulation in models of ischemia reperfusion injury in the diabetic heart and Fatty liver disease (NAFLD) and NASH. *In silico* development of novel therapeutics are tested in transgenic diabetic animal models and viral technologies in primary cell lines for further understanding the mechanism by which Sirtuins play in mitochondrial energy regulation.

Robert Arnold, PhD, Professor

(University at Buffalo, SUNY 2004). Research focuses on the development and utilization of nanomedicines and alternate dosing schedules to improve the treatment of cancers. Specifically, he is interested in developing composite nanomedicines to improve drug delivery to primary tumors and metastatic disease, development and optimization of targeted nanomedicines to facilitate detection and monitor disease progression, and to improve drug delivery and antitumor efficacy. Studies are aimed at gaining mechanistic insights into how tumor microenvironment alters disease progression and disposition and efficacy of drug treatments and nanomedicines. Molecular pharmaceuticals, quantitative analysis (LC-MS/MS), pharmacokinetic (PK) and pharmacodynamic (PD) principles are used to gain mechanistic insights into drug action, toxicity and delivery of lipid- and composite-nanomedicines. A variety of *in vitro* (2D and 3D - spheroid and tumor mimetic microfluidic chips) *In vitro*, and *in vivo* models of human disease and *in silico* computational PK/PD modeling and simulations, and *in vivo* models of human disease are used.

Angela Calderon, PhD, Associate Professor

(University of Lausanne, Switzerland, 2002). Contemporary natural products research specifically focuses on applications of mass spectrometry (MS) to natural products drug discovery and quality and safety assessment of botanical dietary supplements. Approaches such as development of LC-MS based analytical methods for the identification and quantitation of bioactive or marker/standard compounds and potentially toxic compounds in botanical dietary supplements, investigation of botanical-drug interactions through cytochrome P450 metabolism and bioavailability of bioactive natural products, LC-MS based metabolomic studies of promising medicinal and edible plant species and biological fluids, MS based studies of interactions between bioactive natural products and drug targets, identification and quantitative analysis of intact proteins and peptides using LC-MS are used in this research.

C. Randall Clark, PhD, Professor

(University of Mississippi, 1973). Development of analytical methods for drugs and metabolites in biological samples using appropriate analytical techniques; quantitative structure-retention relationships in HPLC; development of derivatizing reagents to facilitate chromatographic analyses; synthesis and pharmacologic evaluation of potential anticonvulsant agents; studies of structural and stereochemical factors affecting the mechanism of drug action at the molecular level.

Jack DeRuiter, PhD, Professor

(Virginia Commonwealth University/MCV, 1982). Design, synthesis and biochemical evaluation of enzyme inhibitors; synthesis and chemical reactivity of potential chemotherapeutic agents; synthesis of novel heterocycles as potential medicinal agents.

Muralikrishnan Dhanasekaran, M.Pharm, PhD, Associate Professor

(Indian Institute of Chemical Biology, Jadavpur University, 1999). Study the etiology and pathophysiology of aging and neurodegenerative disorders using valid animal models. Investigate the pharmacological and protective effects of various synthetic and alternative medicines in aging and neurodegenerative disorders.

Amal Kaddoumi, PhD, Professor

(Nagasaki University, Japan, 2004). Investigates the role of membrane transport proteins in the treatment of neurological diseases, mainly Alzheimer's disease. Transport proteins are widely acknowledged as important determinants governing drug absorption, clearance, and, in many cases, extent of entry onto target organs.

Alexei Kisselev, PhD, Associate Professor

(Moscow State University, Russia, 1995). Focused in proteasome pharmacology. Proteasomes are responsible for degradation of misfolded and damaged proteins and are highly overexpresses in cancer cells. Focused on developing novel proteasome inhibitors that address the excessive toxicity and limited clinical anticancer efficacy of existing proteasome inhibitors.

Feng Li, PhD, Assistant Professor

(Tennessee, 2011). Investigates the design and synthesis of novel biomaterials for drug delivery, most notably polymer-drug conjugate micelles and hydrogels. Investigates the use of small interfering RNAs (siRNAs), oligonucleotides, microRNAs, and genes as therapeutic agents.

Amit Mitra, PhD, Assistant Professor

(Central Drug Research Institute, India, 2009). Current research focuses on identifying the genomic and pharmacogenomic factors governing the wide heterogeneity in human diseases including multiple myeloma, AML and solid tumors that influence susceptibility, disease progression, clinical aggressiveness, drug sensitivity and eventual treatment outcomes.

Peter Panizzi, PhD, Associate Professor

(Vanderbilt University, 2004). Current research is at the crossroads of molecular imaging, biochemistry and infectious disease research. Our goal is to better understand how certain bacteria are able to cause human disease and in turn we seek to use this knowledge against the microbe to detect specific sites of infections and identify the casual pathogen.

Jayachandra Ramapuram, PhD, Professor

(Institute of Technology, Banaras Hindu University, 1998). Topical and transdermal delivery of drug molecules, dermato-toxicity, dermal metabolism of chemicals, drugs and pharmaceuticals. Design and formulation development of various dosage forms. Solid state characterization, stability and improvement of solubility and bioavailability of insoluble drugs. Protein and peptide stability characterization for drug delivery.

Miranda Reed, PhD, Associate Professor

(Auburn University, 2007). My research program studies the molecular and cellular basis of memory loss using preclinical animal models. The overall goal of my laboratory is to identify preventions and treatments for use against memory loss and cognitive impairment. My lab is currently working to identify compounds that may be neuroprotective and improve cognition, particularly those compounds working through a multi-target approach. We specialize in the creation of behavioral tasks with large dynamic ranges for particular uses (e.g. longitudinal assessment vs. high-throughput, rapid assessment of memory), as well as the use of microelectrode array (MEA) technology for real-time monitoring of extracellular molecules in behaving animals.

David Riese, PhD, Professor (Yale University, 1993). Current work explores signaling specificity by receptor tyrosine kinases. Our goals are the development of novel therapeutic, staging, and diagnostic paradigms based on insights we glean from basic, mechanistic studies of receptor tyrosine kinase signal transduction.

Jianzhong Shen, PhD, Associate Professor

(University of Missouri-Columbia, 2005). G protein-coupled P2Y nucleotide and adenosine receptors in vascular biology, disease and pharmacology. Signaling mechanisms governing the adhesion and migration of the inflammatory, progenitor/stem cells into the vascular wall. Protein phosphatase in vascular cell signaling, diseases and therapeutics.

Forrest Smith, PhD, Associate Professor and Graduate Program Officer

(Virginia Commonwealth University/MCV, 1985). Development of synthetic methodology required for the synthesis of organic medicinal agents including antiarthritics and antineoplastics; natural product synthesis.

Vishnu Suppiramaniam, PhD, Professor

(Auburn University, 1993). Electrophysiological, biochemical and molecular approaches to understanding glutamate receptor channel behavior and effects of nootropic compounds. Use of artificial lipid bilayer models to determine the mechanism of cytolysis by viral glycoproteins and bacterial toxins.

Emeritus Faculty Profiles

Daniel Parsons PhD, Emeritus Professor

(University of Georgia, 1979). Evaluation and development of methods to study ligand-protein and drug-cyclodextrin interactions; alterations of plasma protein binding of drugs in the presence of exogenous substances; formulation and development of drug dosage forms including compounding.

William Ravis, PhD, Emeritus Professor

(University of Houston, 1977). Pharmacokinetic characterization of drugs and endogenous substances in humans and veterinary animals; development of drug delivery systems; studies of intestinal absorption and metabolism; clinical studies in special populations.

Full Time Staff Profiles

Chris Smith, Lab Manager

(B.S., Management - Auburn, 1999). Chris Smith is the Lab Manager for the Department of Drug Discovery and Development. He started working with the department in 2011 and came on full-time in 2012. Chris is a 1999 graduate from Auburn University, earning his degree in Management. As the Lab Manager, Chris oversees and maintains common equipment, oversees building maintenance, common lab safety, orders common lab supplies, performs chemical and medical waste disposal, oversees chemical inventory for certain labs, assists primary investigators with research work when needed, serves as a liaison to manufacturers and supplier representatives and technicians, and assists with department events.

Kaleia Williams, Student Services Coordinator

(B.B.A., Business Administration - East Tennessee State; M.B.A., Business Administration and Management – Troy). Kaleia Williams joined the Harrison School of Pharmacy in February of 2014 and moved into her current position in May, 2016. She initially joined the school as a Financial Assistant before moving into her role as Student Services Coordinator in the Department of Drug Discovery and Development. As the Student Services Coordinator, she works with the HSOP Research Office and provides support for DDD graduate programs and students. She also provides logistical support for DDD faculty and staff, and supports analytical aspects of projects in DDD related to assessment of its graduate programs and students. She was born and raised in Tennessee and completed her Bachelor's Degree in Business Administration from East Tennessee State University. She went on to earn her MBA at Troy University. She is an Operation Iraqi Freedom Veteran.

Important Contact Information

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|----------------------------|--------------------------|--------------------------------------------------------------|
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| Chris Smith | 106 PRB 844-8507 | cds0023@auburn.edu |
| Kaleia Williams | 3306G Walker 844-7432 | ksw0016@auburn.edu |

Honor Code and Privacy of Student Information

Honor Code

The Auburn University Student Academic Honesty Code applies to all graduate students in the Department of Drug Discovery and Development. Violations of the Student Academic Honesty Code and potential sanctions are detailed in Title XII, Chapter 1200 of the SGA Code of Laws. Potential violations to the Student Academic Honesty Code will be reviewed with the student before being referred to the Student Academic Honesty Committee. See the policy at

<https://sites.auburn.edu/admin/universypolicies/Policies/AcademicHonestyCode.pdf>.

Family Educational Rights and Privacy Act

For those involved in department teaching activities, your access to student information is governed by the Family Educational Rights and Privacy Act (FERPA), which protects the privacy of student records.

Information regarding FERPA can be found at

<http://www.auburn.edu/administration/registrar/policy.html#ferpa> and

<https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>.

Graduate Program Requirements

Please use the following link to access information about the Auburn University Graduate School:

<http://graduate.auburn.edu/>

Overview

The long-range goal of the graduate program in Drug Discovery and Development is to prepare students as independent scientists with a strong basic science background and the ability to advance translation of basic scientific discoveries into therapeutics. Students ideally suited for graduate study in this department have an undergraduate degree in chemistry, biology, biochemistry, chemical engineering, microbiology, physiology, pharmacy, or any discipline in the biological sciences.

PhD students must complete at least 60 semester hours of coursework, including at least 30 graded credit hours. PhD students must pass the doctoral comprehensive exams and complete dissertation requirements according to all graduate school requirements. Master's degree students must complete at least 30 semester hours of coursework, including at least 15 graded credit hours. Students in the thesis-based Master's degree programs must also complete a thesis.

Courses

A listing of departmental courses can be found here: <http://bulletin.auburn.edu/coursesofinstruction/pyyps/>

As soon as they are accepted for admission, entering students should begin working with their primary mentors, the Department Graduate Program Officer (GPO), and the HSOP Administrator of Academic Programs to plan their first year of coursework. Enrolled students should design their coursework with their respective committees as soon as they are formed.

Additional Requirements for International Students

International students are required to take a semester long course to become familiar with graduate education in the US and at Auburn University.

UNIV 7000: INTERNATIONAL GRADUATE EXPERIENCE (0 credits – Fall)

The goal of this course is to allow new international graduate students a semester-long opportunity to become familiar with not only the inner workings of Auburn University, but also American and Alabamian life and culture.

International students may be required to take additional coursework through the English as a Second Language Program. Details on this program can be found at the following link: <http://www.auburn.edu/academic/international//esl/>. Relevant coursework includes INTL 1800 or INTL 1820, as determined by the Graduate Program Officer, in addition to INTL 1830. This requirement may be waived through a minimum score of 23 on the speaking section of the Internet Based TOEFL or a 50 on the SPEAK test offered by the Auburn University ESL Department, or other exceptional evidence of English language proficiency.

Elective Courses

In consultation with the GPO and their Advisory Committee, students may also select from a number of graduate electives that meet their needs and interests. Note that only courses at the 6000 level or higher count towards degree requirements. Students may take courses below the 6000 level if no other graduate course exists to meet their needs. Courses below the 6000 level will still be covered by graduate student assistantship tuition waivers, as long as the student does not exceed the credit hour maximum during their graduate study (110% of credit hours required for the degree). Students are encouraged to consider auditing such courses to reduce the risk of exceeding the maximum allowable hours for a tuition waiver (see <https://web.auburn.edu/alpha/audit.aspx>). Grades earned from undergraduate courses will not be used in calculation of the GPA for either retention or graduation, but will appear on the graduate transcript. The Auburn University Course Bulletin provides a complete listing of courses offered on the Auburn campus. Availability of elective courses will vary by year and semester.

Doctoral Degree Requirements (PhD)

Advisory Committee and Plan of Study

After the student has enrolled in the doctoral program, an advisory committee should be selected by the student and their major professor. The committee should be formed by the end of the second semester and meet no later than by the end of June. The advisory committee is responsible for developing the student's Plan of Study and conducting the doctoral general and final examinations. It should consist of at least four members of the Auburn University Graduate Faculty. Faculty who taught the course work and those who are highly relevant to the student's dissertation topic are appointed as the committee members. Additional voting members may be appointed to the committee (including no more than one non- Auburn University faculty member, who must hold the terminal degree in the field). A majority of the Auburn University affiliated committee members, including the major professor, must be members of the Graduate faculty at Level 2 in the Drug Discovery and Development department (DDD). The major professor must also be a graduate faculty member (level 2) in the department/program granting the degree. The formal appointment of the advisory committee occurs when the Plan of Study is approved by the Graduate School. The Plan of Study should be prepared by the student and the advisory committee and filed with the Graduate School by the end of the student's first year. The Graduate School recognizes that changes may be warranted, and a form is available for amendments as required by student needs, research interests and course availability.

Doctoral Examination

General Examinations: A general examination (A preliminary examination) is required of all candidates for the degree of Doctor of Philosophy, Pharmaceutical Sciences. This examination shall consist of a written and oral portion and is to be administered by the policies set forth in the following sections.

Written Examination

The major professor and graduate student will select and schedule a one week examination period (5 consecutive working days) 20-hour period for the examination. The examination should be scheduled after the student has completed the formal coursework listed on their Plan of Study to the satisfaction of the advisory committee. The Department Head should be notified, in writing, of the scheduled date.

- Members of the student's advisory committee, (Medicinal Chemistry, Pharmaceutics, Pharmacology) should be contacted about the scheduled written examination and invited to submit questions in writing. The advisory committee may solicit, at their discretion, questions from other graduate faculty members of the Department. Examiners should be contacted at least two weeks prior to the first day of the scheduled examination week.

- The major professor shall collect and collate all submitted questions and prepare a draft examination. The major professor should distribute copies of the draft examination to all examiners to ensure that the examination is representative of the appropriate area(s) of study, appropriately challenging and that the examination can be completed within the one-week examination period (20 hours) allocated. If necessary, the major professor should contact examiners to make appropriate modifications in the examination.

- The major professor shall divide the examination into appropriate portions and administer the examination to the graduate student during the examination week. The graduate student shall complete one portion of the examination each day over a time period of approximately four hours per day.

- The major professor shall collect the completed examination and distribute the appropriate sections to the faculty examiners for grading. Each examiner should grade his/her portion using an appropriate (percentage or letter) grade and indicate if the score is satisfactory or unsatisfactory. The graded exam portions shall be returned to the major professor within one week. The major professor shall then prepare a report including all scores and comments (satisfactory/unsatisfactory) and a recommendation of pass or fail based on general subject areas as follows:

Overall Pass: The student has demonstrated proficiency in all general subject areas and successfully completed the written examination.

Partial Pass/Fail: The student has demonstrated proficiency in some general subject areas, but was deficient in one or more general subject areas.

Overall Fail: The students' performance in all general subject areas was unsatisfactory.

- The major professor and advisory committee shall draft and sign a final report recommending one of the following:

1. The student has passed the written examination (overall pass).
2. The student has demonstrated proficiency in the identified general subject area(s) and has passed this (these) portion(s) of the written examination. The student's performance in other identified general subject area(s) was determined to be deficient and the committee recommends one of the following:
 - The student should be re-examined in this (these) general subject area(s). The reexamination should be scheduled within one month from the time of this notification.
 - The student must successfully complete specified coursework in these general subject areas. The criteria for successful completion will be established by the major professor and advisory committee.
 - The student should complete specific remedial work in these general subject areas under the direction of the major professor and approved by the advisory committee (i.e. Directed Readings, etc.).
3. The student has failed the written examination (overall fail). The committee may recommend that the student be re-examined or discontinued in the Ph.D. program. The student may be re-examined one time, and re-examination should not be scheduled until three months after the original written examination was administered to allow the student adequate time to prepare.

- The major professor shall notify, in the form of a memorandum, the student and the Department Head of the final recommendations of the advisory committee. The major professor and advisory committee will indicate approval of the final recommendations by signing the notification.

Oral Examination

An oral examination shall be held within 3 months after successful completion of the written examination. The oral examination shall consist of preparation and oral defense of an original research proposal by the student. The major professor, the student, and the student's advisory committee should determine that the proposed material for the oral examination is different from the student's dissertation research project. The process for determining "different" should be articulated during the very first committee meeting for the student and understood by all. Consistency in establishing oral examination criteria and administering this exam by all disciplines in DDD (medicinal chemistry, biopharmaceutics, pharmacology) is expected. The scheduling of the oral examination requires approval by the Graduate School. The student must inform the Graduate School, in writing (via form from the Graduate School:

<https://web.auburn.edu/alpha/forms/Login.aspx?ReturnUrl=%2falphabet%2fforms%2fform-a.aspx>), of the oral general examination date at least one week prior to the proposal defense. If the student does not unanimously pass the initial proposal defense, additional work will be recommended to strengthen the proposal. A second proposal defense will then be scheduled. Satisfactory completion of this step advances the student to candidacy status.

- Preparation: The student shall draft a brief summary of the research proposal and obtain approval from the major professor and advisory committee to proceed with the preparation of the full research proposal. The proposal should be prepared using current PHS/NIH application forms and should describe a research project of two years' duration. The completed proposal shall be distributed to members of the advisory committee, the GPO, and the department head no less than 7 working days before the scheduled oral defense.

- Defense: The student shall present the original research proposal as an open seminar and defend the proposal before a closed meeting of the advisory committee. The advisory committee may allow, at their discretion, other graduate faculty members of the Department to participate in the closed, oral defense. The committee may recommend that: 1) the proposal is satisfactory and the student has passed the oral examination, 2) the student has passed the oral examination but the proposal requires minor modification, 3) the proposal and/or the student's oral defense was unsatisfactory. Successful completion of the oral examination requires unanimous support of the student's advisory committee. If unsatisfactory, a re-examination may be given upon recommendation of the advisory committee and approval by the Dean of the Graduate School. The re-examination will be scheduled within three months after a failed examination.

Final Examination

The student shall participate in an oral defense of the dissertation research project. At least one complete semester shall intervene between the written/oral exams and the final dissertation defense. The final defense examination shall be administered by members of the student's Advisory Committee and a Graduate School representative.

- A dissertation constituting a complete description of the student's research project is required of all candidates for the degree of Doctor of Philosophy (Pharmaceutical Sciences).

- The student shall make draft copies of the dissertation that have been approved by the major professor available to members of the advisory committee for review.

- After the draft copies have been approved by the advisory committee, the student shall submit the dissertation to the Graduate School for review and approval.

- An outside reader will be appointed by the Graduate School to review the dissertation. The major professor may request appointment of an outside reviewer at an earlier time.

- After the dissertation has been approved by the Graduate School, the student may apply for scheduling of the Final Examination. This application must be filed with the Graduate School at least one week in advance of the date for the Final Examination.

- The student shall make copies of the approved dissertation available to participants of the Final Examination no later than 2 weeks prior to the scheduled date of the examination.

- The student shall present a public seminar describing the dissertation research project prior to the time scheduled for the Final Examination.

- The Final Examination is administered by the student's Advisory Committee with the participation of the Graduate School's outside reader. Any member of the Graduate Faculty may attend the Final Examination.

Successful completion of the Final Examination requires unanimous support of all members of the advisory committee. If the committee determines that the student has failed the Final Examination, a re-examination may be given on recommendation of the advisory committee and approval by the Dean of the Graduate School. Further examination requires exceptional circumstances and approval of the Graduate Council.

In addition to successful completion of all examinations, final copies of the committee-approved dissertation must be submitted to the Graduate School before the Ph.D. degree is conferred. The student is urged to consult the University Calendar for deadlines.

Summary of Procedures for Doctoral Degree Programs

The student should:

1. Obtain application forms from the Graduate School and apply by submitting all required materials to the Graduate School by the deadlines published in the Bulletin. The Graduate School forwards the application to the appropriate departmental screening committee. The Associate Dean for Academic Affairs then makes a recommendation to the Dean of the Graduate School, who sends a letter notifying the applicant of the decision.
2. Apply for an assistantship, if applicable, through the Drug Discovery and Development department.
3. Become familiar with the requirements for the doctoral degree as published in the University Bulletin.
4. Consult with the departmental Graduate Program Officer (GPO) and become familiar with departmental procedures.
5. Plan a schedule of study for the first semester with the GPO.
6. Acquire necessary forms at the Graduate School or on the Web at (www.grad.auburn.edu)
7. Establish an advisory committee.
8. Prepare a Plan of Study approved by the advisory committee and department head and submit to the Graduate School.
9. Complete course work, including language requirements, if any, as detailed in the Plan of Study.
10. Arrange for the general written and oral examinations through the advisory committee. After the written examination, schedule the general oral examination at least one week in advance using a form obtained from the Graduate School.
11. Submit the dissertation proposal for approval by the advisory committee and become familiar with Electronic Thesis and Dissertation Guide, available at www.grad.auburn.edu/etd_guide.html.
12. Request graduation check in the Graduate School no later than the last day of the semester (graduation day) prior to the semester of graduation.
13. Register for at least one hour of coursework the semester of graduation. Prepare dissertation and submit a committee-approved first draft to the Graduate School for review and approval by the outside Reader, who serves as the representative of the graduate faculty.

14. Study recommendations of the University Reader and make appropriate changes in the dissertation.
15. Upon approval of the dissertation by the Dean of the Graduate School, arrange for final oral examination.

In summary, students in the PhD degree program will be required to pass comprehensive exams, pass the general oral examination, and complete a dissertation and dissertation defense.

Master's Degree Requirements - Thesis Track (MS)

Students in the Master's degree program will be required to complete a thesis. The thesis topic should be selected in consultation with the advisor. Students should begin preparing their thesis proposal no later than the beginning of their second year in the Master's degree program.

Advisory Committee and Plan of Study

The student works under the direction of their major professor and an advisory committee composed of two to three members. Two must be members of the Auburn University Graduate Faculty and the DDD department. The committee chair (or one of the co-chairs) must be a Graduate Faculty member in the department granting the degree. This committee will approve the student's program of study, conduct required examinations and direct the thesis. Plans of study should be approved and submitted to the Graduate School by the end of their first semester.

Thesis Credits

A master's student must enroll for 6 hours of thesis research (DRDD 7990: Research and Thesis). A student may register for more than 6 hours of thesis. Note, that even when no longer taking didactic courses, students must register for a minimum of one credit hour each semester.

The Thesis

After approval of the thesis proposal by the student's committee, the student may proceed with work on the thesis research. It is suggested that each phase of the research be submitted to the student's advisor for approval. After all phases (problem statement, literature review, methodology, etc.) are done, a complete draft of the thesis shall be submitted to the committee. Within 2 weeks, the committee should return its evaluation, recommendations, and corrections to the graduate student. At that time, the student is responsible for responding to these comments in the final draft to be submitted to the committee. The committee shall be given the final draft at least 2 weeks in advance of the thesis defense. The student must follow the Graduate School's formatting requirements and is responsible for obtaining and filing all necessary documents.

Thesis Defense

Students should schedule their final thesis defense at least 4 weeks in advance, and only with approval of all thesis committee members. One week before the scheduled thesis defense, the student shall send an announcement of the defense date to all members of the committee, as well as all other students and faculty in the department. Defense presentations are open to the public, with the exception of the closed session for committee member questions. At the thesis defense, the student shall begin with an oral summary of the research. This will be followed by public questions, followed by closed committee questions. Public questions will be limited to the thesis topic. Closed session committee questions may also include related course work as listed on the student's plan of study. In the event that the student fails the defense, one re-examination may be given on recommendation of the committee and approval of the Dean of the Graduate School.

The Associate Dean for Academic Programs of the School of Pharmacy shall be notified at the same time as committee members regarding the dates of the proposal defense and thesis defense.

Summary of Procedures for Master's Degree Program-Thesis Track

The student should:

1. Obtain application forms from the Graduate School and apply for admission by submitting completed forms and other required materials as outlined in the *Bulletin*.

2. Apply for an assistantship, if pertinent, with the department involved.
3. Become familiar with requirements for the desired degree as outlined in this *Bulletin*.
4. Consult with departmental advisor and become oriented to departmental procedures.
5. Plan schedule of study for the first semester with advisor.
6. Establish an advisory committee through the department head or chair and departmental advisor; usually done during the first semester of course work.
7. Prepare a proposed Plan of Study in consultation with the advisory committee. Submit a plan approved by the committee and department head to the Graduate School at least one term prior to the term in which the student plans to graduate.
8. Consult with the advisor on approval for the thesis plan, if pertinent, and become familiar with the *Electronic Thesis and Dissertation Guide*, on the Web (www.grad.auburn.edu/etd_guide.html).
9. Fulfill language requirements, if any.
10. Request graduation check in the Graduate School no later than the last day of the semester (graduation day) prior to the semester of graduation.
11. Register for at least one hour course the semester of graduation.
12. Prepare thesis manuscript, if pertinent.
13. Arrange for final oral examination with advisory committee.

Policies on Progression and Reporting

Registration Requirements

Every student expecting credit toward a graduate degree must be registered with the Graduate School, and no student is considered a candidate for a degree unless properly registered. A student must be registered in the term in which degree requirements are completed. Students also must register in any semester during which the staff or the facilities of the university are used for work on a thesis or dissertation, for the taking of oral examinations, or for removal of an "incomplete" grade. Thesis and dissertation students needing thesis or dissertation final approval and submission and the final examination register for 7990 Research and Thesis or 8990 Research and Dissertation.

A graduate student may carry a maximum course load of 16 hours per semester (14 in the summer term). This includes undergraduate courses but does not include 7990 (Research and Thesis) and 8990 (Research and Dissertation) when required of all graduate students in a department each semester. Graduate students must carry nine hours per semester, or enroll in GRAD 7@@0/8@@0 with concurrent enrollment for a minimum of one hour of 7990/8990 to be classified as full-time students. Enrollment in GRAD 7@@0/8@@0 requires the completion of this form: http://graduate.auburn.edu/wp-content/uploads/2017/11/Grad_7@@0_8@@0_Form_2017.pdf.

To maintain full-time status, students do not need to register for summer courses. However, students receiving assistantships during the summer term must register for at least 1-credit. International students who have completed all course work and are engaged in research must file a Gold Form: http://www.auburn.edu/academic/international/iss/docs/full_course_of_study_instructions.pdf with the Office of International Education if they wish to register for less than 9 hours of coursework. Master's students are only allowed 4 Gold Forms and PhD students are only allowed 6.

Academic Progress and Standing

The Department of Drug Discovery and Development expects students to complete the Master's degree within 3 years. The Graduate School requires that students enrolled in a Master's degree program must complete the degree in five years or less.

The Department of Drug Discovery and Development expects students to complete the PhD degree within 6 years (including time contributing to a Master's degree, if relevant). Students must achieve candidacy (completion of written and oral exam) within six years and complete all requirements for the degree within ten years. Upon admission to candidacy, the student has four calendar years to complete all remaining

requirements for the doctoral degree. The student's time to completion begins with the earliest completed course approved for inclusion in the plan of study. If unable for any reason to complete the requirements on time, the student may petition, with the approval of the advisory committee, the dean of the Graduate School for a one-year extension. Students failing to complete the degree in the allotted time revert to the status of an applicant and must petition, with the approval of the advisory committee, the dean of the Graduate School to retake the oral examination.

Exceptions may be made for illness or other extenuating circumstances. However, the Graduate School must approve these circumstances. Students having difficulties in progressing because they believe that their advisor is not assisting them in an appropriate manner should first raise these concerns with their advisor. If the problem is not resolved to the student's satisfaction, the student should then discuss the situation with the GPO, department head, or a committee consisting of all graduate faculties in the department.

Each graduate student's progress toward a degree is monitored by the student's Advisory Committee, and issues of professional and personal development may be considered. While failure to maintain academic standards merits automatic dismissal, a student also may be dropped from the Graduate School if progress is unsatisfactory in other areas such as unprofessional behavior or failure to follow Graduate Program Requirements or Policies. In such cases, the Advisory Committee will prepare a statement of deficiencies and/or grievances and discuss it in a meeting with the student. The statement must have the unanimous support of all members of the committee. The student will be warned that corrective measures must be taken within a specified time to avoid action that might result in dismissal. The committee determines the period allowed for correction. Copies of the statement of grievance and summary of the meeting will be provided to the student, the department head, the academic dean, and the graduate dean. If the deficiency is not corrected within the time allowed by the committee, a statement reiterating the grievance and recommending dismissal should be sent to the graduate dean with copies to the student, the department head, and the academic dean. The graduate dean will give the student an opportunity to respond and will make a final determination. The student and the advisory committee will be notified. The action taken will not appear on the student's official transcript, and release of information is restricted under the University's policy on the confidentiality of student records.

Course Transfers

Graduate credit taken in residence at an international institution or at a regionally accredited U.S. institution may be transferred when recommended by the student's major professor, advisory committee, graduate coordinator, and when also approved by the dean of the Graduate School. Such transfer credit must fall within the time limits of the degree. Students seeking transfer credit must provide documentary evidence showing that the course is comparable to similar graduate courses at Auburn University and relevant to the student's plan of study. Students must also provide an official transcript showing credit earned for the course. No prior commitment is made concerning whether transfer credit will be accepted. A student must earn at least 24 semester hours, or half of the total hours required for a master's degree, whichever is greater, at Auburn University. A program that requires 30 hours of credit will be limited to 6 semester hours of transfer credit. The total number of credit hours that may be transferred from another accredited institution towards a doctoral degree varies by program but must be less than 50% of the credit hours listed on the Plan of Study. Such transfer credit 1) must fall within the time limits of the degree; and 2) must be approved by the advisory committee and the dean of the Graduate School. In the case of graduate degree programs offered through joint, cooperative, or consortial agreements, the student must earn a majority of credits from the participating institutions. No transfer credit will be approved without an official transcript. No course on which a grade lower than B was earned may be transferred. Additionally, credit will not be allowed if the combined GPA on graduate work taken at other schools is less than 3.0 on a 4.0 scale, nor may transfer credit be used to improve the GPA on courses taken at Auburn University.

Students who are admitted to a graduate certificate program may use a limited amount of course work taken at another accredited university to meet certificate requirements, with the approval of the program faculty and the Graduate School.* The total number of credits transferred shall not exceed 40% of the total required for

the Certificate. Total credits allowed to transfer may be less as determined by the Certificate Program. Such transfer credit must fall with the time limits of the certificate program. Students must provide an official transcript showing credit earned for the course and documentary evidence that the course is comparable to similar graduate courses in the certificate program at Auburn University. No course on which a grade lower than B was earned may be transferred.

*A student may not use the same graduate course for both undergraduate and graduate credit.

Grades

To receive a graduate degree at Auburn University, a student must earn a cumulative GPA of 3.0 on a 4.0 scale on all courses carrying graduate credit. No more than nine hours beyond the student's Plan of Study is allowed in obtaining the cumulative graduate GPA (CGGPA). No grade below C (including unsatisfactory grades for courses taken under the S/U option) is acceptable for credit toward a graduate degree. Each graduate course in which a grade below C is received must be repeated at Auburn University whether or not it is listed on the student's Plan of Study. Both the original grade and the grade for the repeated course will be counted in calculating the CGGPA. Course credits transferred from another institution may not be used to satisfy this requirement. Courses retaken will not count against the nine-hour limit beyond the student's Plan of Study in obtaining the minimum CGGPA.

Only grades in Auburn University courses approved for graduate credit will be used in determining the overall GPA for continuation of enrollment in the Graduate School. If at the end of any semester the term GPA is below 3.0, or the cumulative graduate GPA (CGGPA) falls below 3.0, the student will be placed on academic probation. If the CGGPA remains below 3.0 after the next nine credit hours of graduate enrollment (both graded and ungraded), the student will be placed on academic suspension. The student may be readmitted only after completion of a remediation plan recommended by the academic unit and approved by the Dean of the Graduate School. No course work taken as part of the remediation plan may count toward the student's degree or CGGPA. Graduate level courses for which grades below C were earned may not be repeated during the remediation period.

Transferring Between the MS and PhD Program

Changes in application status (master's to doctoral, doctoral to master's) or enrollment status (master's to doctoral, doctoral to master's) must be requested by the applicant/student involved. Requests for changes in status by applicants will require the applicant to undergo a new admissions review for acceptance. The request for a change in status by matriculants or current students must be submitted in writing to the departmental GPO, and carry the endorsement of the student's major professor. Subsequent review of the request will proceed through the student's committee, and the committee will generate a written summary of opinions to be presented to the department head. If the department head endorses the request, which is likely only under very unusual circumstances, it will be forwarded to the HSOP Associate Dean for Academic Programs for endorsement. If endorsed, it must then be approved by the Dean of the Graduate School. Current international students must recertify full financial sponsorship for the issuance of a "new" I-20 form.

Submission of Plans of Study

The Graduate Student Plan of Study (DegreeWorks) must be submitted online (<http://graduate.auburn.edu/current-students/>). The Plan of Study must be reviewed and approved by the student's advisory committee prior to submission. For full-time students, the Plan of Study must be submitted no later than the end of the first year for MS student and PhD students. For part-time students, the Plan of Study must be submitted before registration for the fourth course taken in Graduate School. Notification of all changes must be provided before the beginning of the final semester. Instructions for creating a Plan of Study in Degree Works can be found at http://grad.auburn.edu/degree_works_student_planner.html. The student is responsible for carrying out the planned program and for requesting via the major professor and advising committee to make necessary changes.

Annual Progress Report

An annual review of each graduate student is conducted by their committee each year. Beginning in the second year of the program, students are required to complete the annual progress report form found at <http://www.auburn.edu/academic/pharmacy/graduate/procedures.html> and submit their completed form to their advisor and the Graduate Program Officer by August 15th each year.

No student will be permitted to graduate if she/he fails to submit a Plan of Study or does not complete and submit a formal graduation check to the Graduate School prior to the semester of expected graduation.

Policies and Procedures Concerning Student Behavior and Grievances

Professionalism

As a professional school, the Harrison School of Pharmacy (HSOP) functions as a community of colleagues (faculty members, staff members, graduate students, and student pharmacists) who work together to advance the HSOP's mission, vision and goals. These collegial relationships are embodied in the Covenant between Faculty and Students of the Harrison School of Pharmacy (Appendix A), which describes the commitments that faculty members and student pharmacists make to each other in the context of a health professions school.

In the context of a professional school, it is important that all members take responsibility for holding their colleagues accountable for maintaining professional behavior and in treating one another appropriately. At times it becomes necessary for students to have appropriate channels and procedures for reporting perceived violations by faculty and staff members of Auburn University (AU) and HSOP policies and procedures, as well as violations of the School's Covenant. As professionals in training, student pharmacists must recognize that they have a responsibility to the HSOP and the profession of pharmacy to report violations that may be occurring. *This same responsibility applies to graduate students* who are pursuing education in the context of a health professions school. Students are often hesitant to report such matters, fearing retaliation from faculty and staff members. However, students are protected by University and HSOP policies, which prohibit retaliation towards those filing grievance reports. It is also important for students to understand that if student complaints and grievances are to be appropriately addressed by the HSOP's faculty and administration, it is often not possible to keep student identity anonymous.

You can view the entire policy at: <http://www.auburn.edu/academic/pharmacy/about/pp/grievances.pdf>.

Dress Code

The Walker Building of the Harrison School of Pharmacy is a professional patient care site; a dress code policy is in place for activities being conducted in the building. Graduate students with Teaching Assistantships who will be attending PharmD courses in the Walker Building should comply with the HSOP Dress Code while fulfilling course attendance requirements in the Walker Building. The HSOP Professional Dress Policy can be accessed at the following link: <http://www.auburn.edu/academic/pharmacy/about/policies.html#grad>

Email

Email is recognized by Auburn University and the Harrison School of Pharmacy (HSOP) as an official means of communication. The following policies and procedures govern the use of email and email accounts within the HSOP <http://www.auburn.edu/academic/pharmacy/about/policies.html#grad>.

Social Media

Use of social media is acknowledged and supported as a means to interact with others through the Web and other media. Students are encouraged to be diligent in establishing and maintaining a professional social media persona, including but not limited to: picture creation and sharing, video creation and sharing, "friending", status updates in social networks, tagging of you and others in pictures and other media, blogs posts/comments, location updates, etc. Inappropriate use of social media will be investigated. Penalties for inappropriate use of

social media may include academic probation or expulsion. Students are discouraged from interacting with other students in the professional degree program (i.e., PharmD) via social media, especially for students that are receiving a graduate assistantship that includes responsibilities as a teaching assistant.

Research Compliance

Activities Involving Animals

Auburn University's Animal Resources Program requires compliance with the Animal Welfare Assurance negotiated with the Office of Protection from Research Risks/National Institutes of Health (OPRR/NIH). A major part of that Assurance involves the Institutional Animal Care and Use Committee (IACUC) that ensures compliance with the Assurance, the policies of the U.S. Department of Health and Human Services, the U.S. Department of Agriculture and all other federal, state and local regulations concerning care, treatment and use of animals. All activities, whether teaching, research, production or display of animals, and whether or not the activity is funded, must be approved in advance by the committee. The use of animals for any purpose that is not approved in advance by the IACUC may involve severe penalties for non-compliance with institutional policy and could jeopardize the university's Animal Welfare Assurance filed with the OPRR and the NIH. Information may be obtained from the Director of Animal Resources, (334) 844-5667.

Human Subjects Training

Students performing human subjects research are required to complete the CITI human subjects and research ethics training during their first semester. The training can be done on-line at <http://www.auburn.edu/research/vpr/ohs/resources.htm>. Students should complete the CITI modules most relevant to their planned area of study, which may include the biomedical module, the social and behavioral module, web-based research, etc. Students participating in funded research must also complete the conflict of interest module. Upon completion of the training, printed certificates of completion must be provided to the Department Head and Graduate Program Officer. This training and documentation is required by the Institutional Review Board and should be kept up-to-date for the duration of graduate study.

Student Resources

Graduate Assistantships and Assistantship Policies

A limited number of Graduate Assistantships may be available. Your admission letter will have specified whether you have been offered an assistantship. Assistantships may come in the form of teaching and/or research. The Department Head will make decisions on whether you will be designated as a Graduate Teaching Assistant (GTA) and/or Graduate Research Assistant (GRA) on a semester-by-semester basis, based on availability and need. HSOP tuition waiver policy: <http://www.auburn.edu/academic/pharmacy/about/pp/tuition-waiver.pdf>

Guidelines for Graduate Assistantship

1. To be on assistantship, a graduate student must:
 - be in a degree-seeking program of the DDD Department. Students in degree-seeking programs will be classified as MS (thesis) or PHD.
 - be registered for at least one course (anything carrying an Auburn University course number) during each academic term of the assistantship.
 - be making satisfactory progress toward the degree.
2. Assistantships meeting certain criteria are eligible for the [Graduate Tuition Fellowship](#). To be on assistantship AND receive a Graduate Tuition Fellowship, a graduate student must meet the above criteria and the criteria outlined on the Graduate Tuition Fellowship Web page.
3. Assistantship appointments should be 0.25, 0.33, or 0.50 Full-Time Equivalent (FTE).

4. Graduate students may hold multiple assistantships (assistantships and/or hourly employment) from one or more units on campus, but together the cumulative appointment should be 0.25, 0.33, or 0.50 FTE and cannot add up to more than a 0.50 FTE (20 hours per week) appointment. This allows the students the time needed to devote to their academic programs. An exception is automatically allowed in the special case of a graduate assistant assigned to teach one four credit course and one three/four credit course. In such cases, appointments will be made at 0.58/0.67 FTE, respectively. Other exceptions may be requested, with compelling academic justification, in writing to the Provost by the dean. For multiple assistantships from different units, coordinating approval memos from the home unit and the hiring units are required.

5. International graduate students on F1 visas cannot hold a greater than 50 percent work appointment. Rules for summer terms are different. Please check with the [Office of International Programs](#) in Foy Hall.

6. All international graduate teaching assistants are required to submit evidence of satisfactory speaking skills. This can be demonstrated with a score of 23 or higher on the Speaking Section of the Internet-based TOEFL (iBT), or a score of 7 on the Speaking section of the IELTS, or a score of at least 50 on the SPEAK test, which is administered at Auburn University prior to the start of classes. A student may be asked to enroll in a course designed to improve the oral communication skills of international teaching assistants. Hiring units are responsible for making sure that international Graduate Teaching Assistants meet the minimum requirements for employment, including but not limited to a satisfactory background check and proficiency in English. For each international Graduate Teaching Assistant, hiring units are required to submit the [International Graduate Teaching Assistant Certification of Eligibility for Employment](#) form and supporting documentation.

7. Graduate assistants who meet the requirements for GRAD7900 (Thesis Completion) or GRAD8900 (Dissertation Completion) and register concurrently for at least one hour of the Research and Thesis course or the Research and Dissertation course are considered full-time students and are exempt from FICA and Medicare deductions on graduate assistant stipends (Section 218 of the Social Security Act).

8. Effective January 1, 2014, all new graduate student employees (including hourly paid) must have an approved consumer report and/or investigative consumer report (background check) as a condition for appointment. The information contained in these reports may be used to deny an individual employment or continued employment with Auburn University. The background report and its contents are deemed private and confidential and shall be disclosed only for the purposes described in "[Procedures for Securing Background Reports for Graduate Students Before Hiring](#)" to those University employees who have a need to know, or as otherwise required or permitted by law.

Assistantship Workload

Workloads for graduate assistants are defined on the basis of a normal teaching load or the equivalent time in other duties as determined by the department head. The expected workload for a 50% graduate assistant appointment (0.5 FTE) in Drug Discovery and Development is 20 hours per week.

Teaching Assistant Policies

Students assigned as Graduate Teaching Assistants will be responsible for course operations and teaching responsibilities in courses in the Doctor of Pharmacy Program. Teaching Assistants must dress professionally, consistent with the School of Pharmacy Dress Code (<http://www.auburn.edu/academic/pharmacy/about/pp/graduate-dress-code.pdf>). Only official, university communication mechanisms (university email or university phone numbers) should be used by teaching assistants when interacting with students. Use of social media, texting, or cell phones should be avoided when interacting with students, unless otherwise specified by the course coordinator.

Potential conflicts of interest, such as students connected to the GTA by kinship, common origin, marriage, or GTA-student relationships that might be perceived as inappropriate, should be reported to the Department Head prior to accepting the GTA assignment. Conflicts of interest can be managed, as long as they are disclosed in advance. Not disclosing potential conflicts of interest related to GTA duties may result in loss of the Graduate

Assistantship.

International students must meet certain requirements of English language proficiency to serve in this role thereafter (see “Additional Requirements for International and Non-Healthcare Students”.)

Students who serve as graduate teaching assistants will be evaluated at the end of the semester by each faculty member who has enough interaction with the GTA to provide constructive comments for the course and term specified, as determined by the course coordinator. The coordinator will be responsible for collecting completed evaluations and reviewing these with the student. Evaluations will be signed by the student and evaluator and returned to the Graduate Program Officer to place in the student’s file.

Continuation of Assistantships

Your academic and assistantship performance will be evaluated during each semester, and assistantships will only be renewed for those with acceptable performance. Your efforts to secure funding from other sources will also be positively considered when renewing assistantships. While it is our goal to provide Graduate Assistantships to all students, our ability to provide assistantships for the duration of your academic program may also be limited by funding and availability.

Participation in Professional Meetings

The Department encourages attendance and participation at national and regional professional and scientific meetings. Students are encouraged to seek travel funds from the Graduate School (http://www.grad.auburn.edu/forms/begin_travel_award.html). Limited funding from the DDD department or the School of Pharmacy Graduate Programs office may be available for graduate students to attend these meetings. Students should consult with their advisor in seeking travel funds. Generally speaking, only students who are presenting a paper or poster at the meeting may apply for departmental support. It is expected that any graduate student who attends these meetings will attend all feasible research and educational sessions along with pertinent business meetings. Failure to do so will result in forfeiture of funding. Students attending meetings are representing Auburn University and the Department of Drug Discovery and Development. As such, students are expected to dress professionally, arrive to meetings on time, and participate in discussion.

Teaching Development and Experience

While not required, all graduate students are encouraged to seek further training and experience in teaching. Additional resources are available from the Biggio Center, including a Professional Development Seminar Series, the Preparing Future Faculty (PFF) Program, and the Graduate Certificate in College/University Teaching; the PFF and Graduate Certificate Programs require that students apply and are accepted before beginning the programs.

Professional Development Seminar Series

Registration is not needed for the Professional Development Seminar Series, and the schedule can be found at <http://wp.auburn.edu/biggio/events/home/>.

Preparing Future Faculty (PFF)

This program, available through the Auburn Graduate School, improves readiness to assume faculty roles, helping graduate students understand the expectations and functional realities of faculty life, developing wider institutional and personal networks, and making graduate study even more responsive to disciplinary and professional needs. Graduate students from all disciplines at Auburn University are eligible to participate in the program. Students are eligible to apply for this program during the Spring of their 1st year. However, approval to apply must be obtained from the student’s mentoring committee and the department head, DDD. Applications are typically due in April for admission to the following year’s class. More information can be found here:

<http://wp.auburn.edu/biggio/pff/>.

Graduate Certificate in College/University Teaching

Students with an interest in academic careers may earn a Graduate Certificate in College/University Teaching (<http://www.education.auburn.edu/teacher-education>). Requirements for the Graduate Certificate include a total of 12 graduate hours, with a grade of B or better in the following courses:

- HEID 8500 The Professoriate (3 credits)
- HEID 8510 Seminar in College Teaching (3 credits)
- Supervised teaching practicum with faculty member in the student's home department (3 credits)
- 3 elective credits selected from approved courses (2 credit hours of the PFF seminar series count)

Approval to apply must be obtained from the student's mentoring committee and the department head, DDD.

Vacation and Personal Leave

Graduate students do not accumulate vacation, personal, or sick leave time and the provisions of FMLA do not apply. Thus, HSOP graduate students are approved for absence only for official holiday periods as specified by the Auburn University Office of Human Resources. Those HSOP graduate students on assistantship will be granted paid leave only for those official holiday periods. These dates can be found on the web at http://www.auburn.edu/administration/human_resources/holidays.htm. Note, most students in Drug Discovery and Development are appointed for 12 months, and thus graduate assistants are responsible for their duties 12-months per year.

Requests for exception to the leave policy for vacation and personal leave must be submitted at least 7 days in advance (<http://www.auburn.edu/academic/pharmacy/graduate/pdf/gs-request-absent.pdf>). These requests must be approved by the graduate student's faculty advisor, assistantship supervisor (if applicable), Department Head, and the Associate Dean for Research and Graduate Programs. If sick leave cannot be approved in advance, please submit a leave form upon your return. All requests for exceptions to the leave policy for sickness must be accompanied by an explanation from a primary health care provider. Graduate students on assistantship may not be paid for absences during other periods. Excessive unexcused absences may serve as grounds for terminating a graduate student's financial support and/or their position in the graduate program.

Workspace

Each student will be provided access to the departmental office suite and desk space in the Walker Building or PRB. Students must obtain card access and office keys by first making a request with the Department's Student Services Coordinator. Keys may then be picked up at Auburn University Access Control office, located on the bottom floor of the stadium parking deck. Upon completing degree requirements, keys must be returned to Access Control.

Phones

Phones are permitted in the office and should be used only for University teaching and research activities. Please be respectful of your office-mates when using the shared phone.

Photocopies and Office Supplies

All work on the equipment available in the Department should be related to graduate course work, research, or an assistantship assignment. Photocopying may be done on Departmental equipment if it involves collaborative research between the student and a faculty member, graduate course work, or an assistantship assignment. Work unrelated to any of these areas is not an acceptable reason to use Departmental equipment. In an effort to help curb unnecessary expenditures, all graduate students should make an effort to proactively insure that copies are made in black and white unless color copies are absolutely needed.

Administrative Support

Administrative support is limited. Usually, the only justification for soliciting administrative or work-study student assistance is regarding work related to an assistantship assignment. All requests for help should be

submitted through your advisor and/or the department head.

Library and Electronic Resources

The library provides search tools and access to multiple health-related resources. Search tools most relevant to pharmacy can be found at <http://www.lib.auburn.edu/find/bysubject.php#40>. PubMed is a public access search engine that also is very useful (<http://www.ncbi.nlm.nih.gov/pubmed/>).

The Harrison School of Pharmacy licenses additional pharmacy and medical resources, including products like Clinical Pharmacology, Lexi-Comp, Facts and Comparisons, and Micromedex. These resources can be accessed via the HSOP student webpage.

Electronic resources of Auburn University must be used responsibly. Inappropriate or illegal activities conducted using University computers, networks, or email addresses will not be tolerated.

Computers

Graduate students are encouraged to own and maintain a laptop computer. Wireless internet is provided in most places on campus, and wired ports are provided in student office space. The Harrison School of Pharmacy Office of Information Technology (OIT) can provide minimal support for your computers, only as needed for departmental teaching or research activities. This includes help in establishing internet connectivity or connecting to University printers. The School is primarily a Windows-based computing environment. Students are welcome to use their preferred laptop operating system but should be aware that support for non-Windows machines is very limited. The Department will not purchase software licenses for student's personal computers, but software licenses may be obtained through AU Install (<https://cws.auburn.edu/shared/auth/index?r=http%3A%2F%2Fcws.auburn.edu%3A80%2Foit%2Fauinstall&i=86>). HSOP OIT may also be able to provide discounted licenses on other needed software, and these requests should be made through your advisor.

FUNDING OPPORTUNITIES

Auburn Graduate Student Thesis/Dissertation Research Award

The Graduate School provides partial support for thesis and dissertation research. As such, these awards may be used to help support the purchase of materials and equipment necessary for data collection or for travel (within or outside the United States) for the purpose of conducting research. All materials and equipment purchased with Research Award funds remain University property, subject to the appropriate University financial and accounting policies

(http://www.auburn.edu/administration/business_office/policy_manual/index.html#Use%20of%20Fund s). Awards will not be made to cover stipends. Students from all areas of graduate study to participate in this program. The maximum award amount is \$1000. Applications can be submitted at <http://grad.auburn.edu/cs/thesisdissertationaward.html>.

American Foundation for Pharmaceutical Education (AFPE)

First-year graduate student fellowships, pre-doctoral fellowships, and minority awards are available to US citizens or permanent residents (<http://www.afpenet.org/apply.html>). These awards are competitive and prestigious, paying between \$6,500 to \$12,500 per year. Pre-doctoral students who have completed at least 3 semesters of graduate education or eligible to apply for the pre-doctoral fellowships. Awards are renewable, and may be used for student stipends, supplies, books, materials, travel, etc.

Ruth L. Kirschstein National Research Service Award (NRSA)

The National Institutes of Health offers a number of training grants for pre-doctoral students. Students who have previously earned a PharmD degree or other terminal healthcare professional degree also may be eligible for post-doctoral awards. These awards are highly competitive, but highly prestigious and financially generous. See http://grants.nih.gov/training/F_files_nrsa.htm for further information on specific awards that are available.

Appendix - Departmental Forms

Committee Meeting Report

This form is to be completed by the student following each Advisory/Thesis/Dissertation Committee Meeting. The completed form should be signed by the student and all committee members and the original submitted to the Graduate Program Officer for placement in the student's file.

| | | | |
|------------------------------------------------------------|--|-------------------------|--|
| Student: | | Date of meeting: | |
| Committee Type (Advisory, Thesis, or Dissertation): | | | |

1. Progress on previous recommendations:

2. Summary of discussion:

3. Recommendations going forward:

4. Other comments:

5. Next planned committee meeting (if known):

Committee chairperson (mentor)

Graduate student

Committee member

Committee member

Committee member

Committee member (external)

Change of Advisor Form

Date: _____

Student's Name: _____
Print

Current Advisor's Name: _____
Print

New Advisor's Name: _____
Print

I confirm that I will be the new academic advisor for the above mentioned student and I accept all responsibilities of being their advisor.

New Advisor's Signature: _____ Date: _____

Student Signature: _____ Date: _____

Return this form to the Graduate Program Officer.

Do Not Write Below This Line

Date Submitted: _____

Graduate Program Officer Signature: _____

Former Advisor Signature: _____

Cc: HSOP Office of Research and Graduate Programs
Student File

Approval for Independent Study/Directed Readings

Part I – To Be Completed By Student

Name: _____ Student ID#: _____

College: _____ Major: _____

Course Number: _____ Course Title: _____

Number of Credit Hours Requested: _____ Semester: _____, 20_____

Professor: _____ Department: _____

Grade Option:

Letter Grade

Satisfactory/Unsatisfactory

Part II – To Be Completed By Instructor

(Please attach a course syllabus that addresses the following four points.)

- I. Objective of the course
- II. Nature of the teaching-learning process and the proposed schedule of meeting
- III. Proposed work products
- IV. Criteria to assess the work product

Student Signature

Date

Associate Dean for Research
And Graduate Programs Signature

Date

Instructor Signature

Date

Dean Signature

Date

Department Head Signature

Date

Provost Signature

Date

Harrison School of Pharmacy
Department of Pharmacal Sciences
Academic Progress Annual Report
2017-2018

Cover the Period from June 1, 2017-May 31, 2018

You are to complete the form and present it to your committee. Have your research advisor and committee members review and sign the form during your annual committee meeting.

Submit the signed form and all attachments to
Jenny Johnston
Assistant to the Associate Dean for Research and Graduate Studies
on or before August 15, 2018

(Please note that incomplete forms or forms lacking attachments WILL NOT be accepted)

Academic Progress

Please attach to this form:

1. A copy of the current plan of study
2. An unofficial transcript
3. A one page summary of research progress including (hypothesis, background, experiments, results, conclusion, future plans)

Date:

Student's Name:

Research Advisor(s):

Date Admitted to

Program:

Date of Comprehensive Exams:

(Please indicate the date you plan to take the written or oral comprehensive exams if, these are not yet complete.)

Written

Oral

Members of Your Advisory Committee:

Proposed Dissertation/Thesis Title:

- A. **ALL COURSEWORK TAKEN** (Summer, Fall, Spring of most recent year including research/thesis units):

SUMMER

| Course Number (ex DRDD 7230) | Name | Units | Grade |
|---------------------------------|------|-------|-------|
|---------------------------------|------|-------|-------|

Semester GPA:
Cumulative GPA:

FALL

| Course Number | Name | Units | Grade |
|---------------|------|-------|-------|
|---------------|------|-------|-------|

Semester GPA:
Cumulative GPA:

SPRING

| Course Number | Name | Units | Grade |
|---------------|------|-------|-------|
|---------------|------|-------|-------|

Semester GPA:
Cumulative GPA:

******* If more space is needed for answering questions B-H attach a typed listing *******

B. **ALL SEMINAR(S) PRESENTED SINCE ADMITTED INTO THE PROGRAM TO DATE** (title, date and venue and location).

C. **ALL PAPERS AND ABSTRACTS PUBLISHED SINCE ADMITTED INTO THE PROGRAM** (in chronological order with complete titles and authors and citation):

D. GRANTS WRITTEN SINCE ADMITTED INTO THE PROGRAM (list full name, date, and amount of grant/award for all academic years):

Applied For:

Received:

E. SCIENTIFIC MEETINGS ATTENDED SINCE LAST JUNE (list complete name and date(s) of meeting(s) for last academic year). If you participated academically in the meeting please note your role (poster presentation, panel discussion, moderator). For posters, please include citation for panel discussion and moderator roles, please include title of session.

F. **ALL APPLICATIONS FOR FINANCIAL SUPPORT SUBMITTED SINCE ADMITTED INTO THE PROGRAM AS WELL AS FINAL FUNDING DECISION.** (Include complete name and date(s) of support application. Be sure to include graduate school travel scholarships, Tillery Graduate Travel Scholarship and Malone-Zallen Graduate Research Award.)

G. ADDITIONAL ACHIEVEMENTS AND AWARDS:

Student Signature

Date

H. WRITTEN REPORT OF RESEARCH ADVISOR AND COMMITTEE COMMENTS REGARDING STUDENT'S ACADEMIC PROGRESS AND RESEARCH PLAN FOR THE PERIOD OF JUNE 1, 2017-May 31, 2018.

Committee Member Signature

Date

Committee Member Signature

Date

Committee Member Signature

Date

Committee Member Signature

Date

Committee Member Signature

Date

Committee Member Signature

Date

Work for the year is incomplete until this report has been approved by the Research Advisor, signed by all constituents listed above and submitted to the Associate Dean for Research and Graduate Studies.

APPROVAL OF RESEARCH ADVISOR:

APPROVAL OF DEPARTMENT HEAD:

Advisor Signature

Date

Drug Discovery and Development
Department Head Signature

Date

Department of DDD, Harrison School of Pharmacy
Graduate Teaching Assistant (GTA) Evaluation Report

GTA: _____ Course: _____ Semester: _____

1. GTA adheres to the HSOP policies, practices, procedures and dress code
Strongly agree Agree Disagree Not Applicable

2. GTA is punctual to class room/lab, meetings, and scheduled appointments
Strongly agree Agree Disagree Not Applicable

3. GTA organizes time well and is efficient working with his/her team members
Strongly agree Agree Disagree Not Applicable

4. GTA's provides clear instructions and enhances students' learning
Strongly agree Agree Disagree Not Applicable

5. GTA displays solid understanding of the knowledge and skills required to serve students.
Strongly agree Agree Disagree Not Applicable

6. GTA has a strong positive attitude and serves as a professional role model to students
Strongly agree Agree Disagree Not Applicable

7. GTA interactions with students are appropriate and enhances their learning
Strongly agree Agree Disagree Not Applicable

8. GTA recognizes and accepts individual differences of students
Strongly agree Agree Disagree Not Applicable

9. GTA accepts constructive criticism and feels accountable for the assigned duties
Strongly agree Agree Disagree Not Applicable

10. GTA demonstrates diligence, consistency, accuracy and completes grading on time
Strongly agree Agree Disagree Not Applicable

11. GTA effectively handles problems through communication with students and teachers, administrators, and others
Strongly agree Agree Disagree Not Applicable

12. Please provide any additional comments regards to GTA performance

GTA Signature _____ Date _____

Instructor's Signature _____ Date _____

Administrator Signature _____ Date _____

Approved: Yes _____ No _____

Master's Thesis Completion Checklist

1. Newly Admitted (before the beginning of first term)
 - Respond to offer of admission
 - Locate housing
 - Clear any medical holds
 - Obtain student ID card
 - Attend orientation
2. Getting Started (your first term on campus)
 - Register for classes
 - Check [academic calendar](#) for deadlines
 - Contact your departmental advisor
 - Identify your major professor
 - Begin selecting your advisory committee (if required)
3. Making Progress (after your first term)
 - Register each term
 - Check [academic calendar](#) for deadlines
 - Submit your approved [Plan of Study](#) (recommended)
 - Complete required course work
 - Complete comprehensive exams
4. Nearing Completion (one term before you graduate)
 - Register
 - Check [academic calendar](#) for deadlines
 - Submit [Plan of Study](#) (required)
 - Submit [Graduation Application](#) from AU Access, My Academics, Grad Application (required)
5. Graduating (the term you plan to graduate)
 - Register (one hour minimum)
 - Check [academic calendar](#) for deadlines
 - Clear all incomplete grades
 - Clear all holds
 - Schedule [final oral exam](#)
 - Submit pdf of your thesis to thesis@auburn.edu for format check (optional)
Note: When submitting thesis for format check, please indicate in your email the style guide being used (EX: APA, MLA, Chicago, etc.) and original file type that was used to create your thesis (Ex: .docx, .xlsx, .sas, .spss etc.)
 - Submit [ETD Final Approval Form](#)
 - Submit Dissertation on AUETD
 - Join the [Auburn University Alumni Association](#)

Doctoral Completion Checklist

1. Newly Admitted (before the beginning of first term)
 - Respond to offer of admission
 - Locate housing
 - Clear any medical holds
 - Obtain student ID card
 - Attend orientation

2. Getting Started (your first term on campus)
 - Register for classes
 - Check [academic calendar](#) for deadlines
 - Contact your departmental advisor
 - Identify your major professor
 - Begin selecting your advisory committee

3. Making Progress (after your first term)
 - Register each term
 - Check academic calendar for deadlines
 - Submit your approved plan of study
 - Complete required course work
 - Submit signed application for General Oral Exam.
 - Note: Upon receipt, the Graduate School will send the student and major professor the Report on General Oral Examination.
 - Complete comprehensive exams. Once completed, submit the signed Report on General Oral Examination to the Graduate School.
 - Draft Dissertation Proposal (if required)
 - Defend Dissertation Proposal (if required)

4. Making Progress (after Admission to Candidacy)
 - Write the dissertation(follow guidelines of [ETD Guide](#))

5. Nearing Completion (one term before you graduate)
 - Register
 - Check [academic calendar](#) for deadlines
 - Submit [Plan of Study](#) (required)
 - Submit [Graduation Application](#) from AU Access, My Academics, Grad Application (required)

6. Graduating (the term you plan to graduate)
 - Register (one hour minimum)
 - Check [academic calendar](#) for deadlines
 - Clear all incomplete grades
 - Clear all holds



AUBURN UNIVERSITY GRADUATE SCHOOL REVISION TO EXISTING PLAN OF STUDY

Date _____

Student's Full Name _____ ID Number _____

This form is to be used when requesting substitutions, additions, or deletions for courses or committee members on a previously-existing and approved PLAN OF STUDY. Submit two signed copies to the Graduate School. If more than minor changes are needed, please submit a new plan of study via DegreeWorks.

CHANGE IN COURSES

| Removed Course Numbers | Removed Course Names | Credit Hours | Added or Substituted Course Numbers | Added or Substituted Course Names | Credit Hours |
|------------------------|----------------------|--------------|-------------------------------------|-----------------------------------|--------------|
| | | | | | |
| | | | | | |
| | | | | | |

CHANGE IN COMMITTEE MEMBERS

Note: Current members to be removed should sign to indicate agreement.

Member(s) to be Removed

Name

Name

Member(s) to be Added

Name

Name

Member(s) to be Removed

Signature

Signature

Member(s) to be Added

Signature

Signature

Approved By:

Note: The committee chair, department head/chair, GPO and ADRGP signing, certifies that all committee members are in agreement.

Committee Chair Name

Department Head/Chair Name

Department GPO Name

Associate Dean for Research and Graduate Programs Name

Dean, Graduate School

Committee Chair Signature

Department Head/Chair Signature

Department GPO Signature

Associate Dean for Research and Graduate Programs Signature

Date



AUBURN UNIVERSITY

GRADUATE SCHOOL

DOMESTIC REQUEST FOR CURRICULUM CHANGE

(submit one printed copy)

Name:

Student Number:

Reason for Change:

Change Requested:

Current:

Proposed:

Proposed Effective Term:

Expected Term of Graduation/Completion:

- The student will continue on assistantship.

Financial Support

Please complete a new [[Assistantship Award Statement](#)] even if there has been no change in previous finances. New financial verification is required for all changes.

SIGNATURES

Requested By

Date

Major Professor/Advisor

Date

Departmental Graduate Program Officer

Date

Department Head

Date

Associate Dean for Research & Graduate Programs

Date

Graduate School

Date



AUBURN UNIVERSITY

GRADUATE SCHOOL

INTERNATIONAL REQUEST FOR CURRICULUM CHANGE

(submit one printed copy)

Name:

Student Number:

Reason for Change:

Change Requested:

Current:

Proposed:

Proposed Effective Term:

Expected Term of Graduation/Completion:

- The student will continue on assistantship.

Financial Support

Please complete a new [[Assistantship Award Statement](#)] even if there has been no change in previous finances. New financial verification is required for all changes.

SIGNATURES

Requested By

Date

Major Professor/Advisor

Date

Departmental Graduate Program Officer

Date

Department Head

Date

Associate Dean for Research & Graduate Programs

Date

Graduate School

Date

Graduate Student Request To Be Absent

(Must be submitted at least seven days in advance of planned absence)

Graduate Student's Name (Print): _____

Department: _____

Student Appointment Type _____GTA _____GRA _____Not Applicable

Reason for Absence:

_____ Personal illness/injury

_____ Death in family

_____ Scientific Meeting

_____ Other (explain): _____

Dates of Requested Absence:

From _____ AM/PM _____
Month Date Year

Through _____ AM/PM _____
Month Date Year

Total Hours of Paid Leave

Total Hours of Unpaid Leave

Graduate Student Signature

Date

Faculty Advisor Signature

Date

Graduate Assistant Supervisor Signature (IF APPLICABLE)

Date

Department Head Signature

Date

Associate Dean for Research and Graduate Programs Signature

Date



AUBURN

UNIVERSITY