CLINICAL PHARMACEUTICAL SCIENCES DEPARTMENT OF PHARMACOTHERAPY AND TRANSLATIONAL RESEARCH UNIVERSITY OF FLORIDA COLLEGE OF PHARMACY

POLICIES AND PROCEDURES MANUAL

A Reference Guide for Students Concerning Departmental Policies and Procedures

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Program website: https://ptr.pharmacy.ufl.edu/education/clinical-pharmaceutical-sciences/

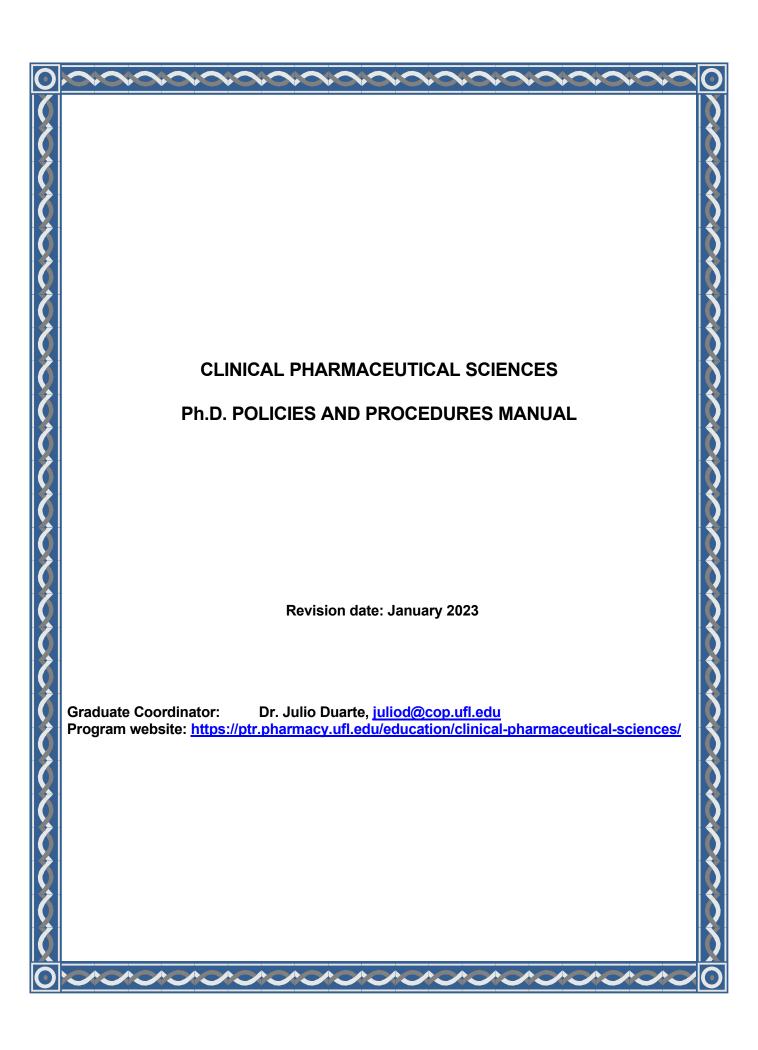


TABLE OF CONTENTS

GRADUATE PROGRAM	3
Objectives of the Graduate ProgramAbout the PTR Department	
PROGRAM REQUIREMENTS	4
Admission to the Ph.D. program	4
Funding of stipends, courses, and research costs	5
Vacations Role of the Graduate Coordinator	5
Selection of a major advisor	
Changing major advisor	6
COURSE REQUIREMENTS FOR PH.D. STUDENTS	
Curriculum	7
Example elective courses	8
Additional skills and experience	
Academic progressPresenting research findings	
Individual development plan	
Probation	10
EXAMINATIONS	10
Qualifying examination	10
Admission to candidacy	
Publication of Dissertation	
CopyrightFinal Examination	
Announcement of final examination	
Members Required at the examination	
Signatures	
Certification	12
SUGGESTED TIMETABLE FOR PH.D. PROGRESSION	12
STUDENT RECORDS	13
SERVICE RESPONSIBILITIES	13
STUDENT TRAVEL	13
CONFLICT RESOLUTION	14
ADDITIONAL STUDENT RESOURCES	14

I. GRADUATE PROGRAM

Objectives of the Graduate Program

There is a critical need for future generations of both translational scientists and clinician-scientists with the research training necessary to facilitate clinical and translational research. Importantly, the National Institutes of Health has emphasized the importance of clinicians and translational scientists trained to work in interdisciplinary, team-based research environments. The Clinical Pharmaceutical Sciences training program at the University of Florida (UF) College of Pharmacy is designed to prepare motivated individuals to pursue independent research careers in academia, industry, or government. The degree program is under the general supervision of the University of Florida Graduate School and the UF College of Pharmacy (COP), but detailed supervision and advisement are provided by the Department of Pharmacotherapy and Translational Research (PTR) faculty.

The objectives of the Ph.D. program are:

- (i) to develop translational scientists and clinician-scientists capable of conducting translational research through the integration of biomedical science, pharmaceutical science, and clinical expertise;
- to guide students in acquiring specialized knowledge, through an individualized program of didactic course work and high-quality research in areas that include drug metabolism and transport, pharmacokinetics, pharmacodynamics, pharmacometrics, pharmacogenomics, clinical research, and experimental therapeutics;
- (iii) to, where possible, assist graduating students find employment suited to their interests and abilities.

The program's overarching research focus is investigating genetic and non-genetic factors that contribute to variability in drug response. These are applied to therapeutic areas including cardiovascular disease, oncology, infectious disease, pulmonary disease, psychiatry, and clinical pharmacology.

About the Department of Pharmacotherapy and Translational Research (PTR)

The PTR Department provides classroom and clinical instruction for pharmacy students and trains graduate students in clinical translational research. In addition, the department offers a variety of clinical residencies and research fellowships as well as a MSP and PhD program in Pharmaceutical Sciences, with a concentration in Clinical Pharmaceutical Sciences. The PTR department is a national leader in the areas of pharmacy practice, education, and clinical/translational research. Faculty members in the department are successful in obtaining research funding from numerous sources, including the National Institutes of Health.

The PTR Department is located within the University of Florida J. Hillis Miller Health Science Center, which includes UF Health Shands Hospital as well as the colleges of Dentistry, Medicine, Nursing, Pharmacy, Public Health and Health Professions and Veterinary Medicine. The UF Health system also encompasses six research institutes: the Clinical and Translational Science Institute, the McKnight Brain Institute, the Genetics Institute, the UF Health Cancer Center, the Institute on Aging, and the Emerging Pathogens Institute. The location of the PTR department in this complex offers a broad variety of opportunities for learning and research collaboration.

II. PROGRAM REQUIREMENTS

Admission to the Ph.D. Program

In order to be considered for admission, eligible applicants must complete all required application materials by the specified deadline. These materials are available from the COP Graduate Education webpage. Students are normally admitted in the fall semester but may be admitted in other semesters in extenuating circumstances. The fall application priority deadline generally falls on December 1 of each year. While admission decisions are made by the PTR graduate faculty, the Department adheres to the minimum standards for graduate student admissions as set forth by the University of Florida Graduate School. Applicants who hold U.S. citizenship or permanent residency and a Doctor of Pharmacy degree from an ACPE-accredited institution are often given priority in the selection process. However, all eligible applicants who hold bachelor's or master's degrees in pharmacy, biology, or related sciences will be considered. The number of positions available varies by year and depends to some extent on available funding.

Successful candidates will be informed of their acceptance into the program in writing. Students will be asked to inform the department in writing of their intention to accept this offer by $\underline{\mathsf{April}\ 15}$ – the deadline set by Graduate School.

Total Credits for Degree Confirmation: A total of 90 credit hours with the inclusion of at least 30 didactic course credits and at least 60 research/dissertation credits.

Program Duration: Approximately 4-5 years.

Specific Requirements for Graduate Study

The Graduate School, located in Grinter Hall, prepares an online <u>Graduate Catalog</u>, which gives detailed information on requirements for study in graduate degree programs. The Graduate Catalog and latest Graduate School rules, including deadlines and requirements for graduation, which can be obtained from the <u>Graduate School website</u>. <u>It is the student's responsibility to stay informed of current Graduate School requirements</u>. The information in this handbook does not contain the rules and requirements of the University or the Graduate School – these be found at the Graduate School website.

Student Responsibilities

It is the student's responsibility to stay informed of all degree requirements, including those from the Department, College, Graduate School, and University. Students must also stay informed of critical dates for their registration and progress through the program. The Graduate School generally does not grant appeals for missing deadlines. Students may also be financially liable for any course added or dropped after the enrollment deadline, including students with tuition waivers. Critical dates are available on Graduate School Academic Calendar (https://gradcatalog.ufl.edu/graduate/calendar/). Students are also expected to maintain a grade point average (GPA) of 3.0 or greater throughout their progression through the program

Funding of Stipends, Tuition, and Research

Students admitted to the program will generally receive tuition remission and a stipend for teaching and/or research assistantship appointments. Funding for a student's stipend shall be for a minimum period of four years. However, if the student is making satisfactory progress and extra time is needed, funding may be extended. Exceptional students may be eligible for additional stipends from the

University. Students are encouraged to apply for fellowships and awards, particularly those that provide external funding support. These funds can be utilized to cover or supplement stipends or fund appropriate research and travel expenses.

Leave Policy

Personal time for graduate assistants is paid up to five days per semester, which is credited at the beginning of each semester. This leave may not be used in less than one-day increments, and leave may not be cumulative from semester to semester. Please be advised that time taken during University of Florida semester breaks is considered part of the vacation period allotment. University holidays do not count toward the leave allowance. These holidays are listed on the University Holiday Calendar. Student financial support may be terminated for excessive unexcused absences.

Graduate Assistant leave of absences should be coordinated with the student's faculty advisor, the Graduate Coordinator, and the Office of Graduate Education in accordance with the current Graduate Assistants United bargaining agreement. Questions about the leave of absence policy should be directed to the COP Office of Graduate Education.

Role of the Departmental Graduate Coordinator

The Graduate Coordinator is responsible for overseeing the overall quality of the graduate program. The Graduate Coordinator or designee reviews admission materials and ensures that requests for information are sent in a timely manner. Department personnel may assist prospective students to coordinate meetings and/or interviews. The Graduate Coordinator is responsible for advising students on general graduate policies in concert with the student's faculty major advisor. The Graduate Coordinator will meet with all new students during their first month of enrollment to review policies and expectations. The Graduate Coordinator will also oversee the process of selection of a major advisor, to ensure that each student meets with available faculty. The Graduate Coordinator will review grades each semester and notify the student and their advisor of probation status if their GPA moves below 3.0. Finally, the Graduate Coordinator will also serve as a department contact concerning policies and procedures relating to graduate education and assist with recommending students for teaching assistant duties.

Selection of a Major Advisor and Supervisory Committee

A faculty major advisor (which may include the Graduate Coordinator) should be identified for each student by the end of the first year of study. Once an advisor is selected, the student should also work with their advisor to select a supervisory committee by the end of the second semester. The student should meet with the supervisory committee at least twice per year and submit appropriate documentation of these meetings. Prior to supervisory committee selection, the major advisor will serve as the supervisory committee; thus students should still provide documentation of at least twice per year committee meetings.

Major Advisor: A student may select a faculty major advisor at any time within the first two semesters of the program. Incoming students are sometimes directly recruited by a specific faculty member (who will serve as the student's major advisor) in certain cases where a match exists between the availability of funding (stipend and tuition), the student's interest, and faculty members who are accepting a student in a given year.

For students entering the program without a chosen mentor, the Graduate Coordinator will act as the student's supervisor until a major advisor is designated. For these students, it is mandatory to have individual meetings with selected faculty members to coordinate laboratory rotations with

a goal of identifying the mentor by the end of the second semester. During program orientation, faculty with potential openings in their research groups may meet with students to discuss the potential for completing a rotation. It is strongly suggested that students complete at least two laboratory rotations before formally selecting a major advisor

Changing Major Advisor: Changing a major advisor is costly to both the student and faculty member involved. Thus, this should be reserved for rare cases. Research projects are usually non-transferable from one advisor to another. If a change is warranted, the following protocol should be followed:

- 1. The student must first discuss the change with their advisor.
- 2. The student and faculty member should both submit a letter of explanation to the Graduate Coordinator and the Department Chair. The faculty member's letter should contain an overall evaluation and appraisal of the situation.
- 3. The Department Chair will evaluate the letters and discuss them with both individuals. The Chair will then make a decision regarding the requested change.
- 4. All notebooks and pertinent work/data must be left with the initial advisor unless permission to transfer them is obtained from the initial advisor.

Supervisory Committee: The supervisory committee should be appointed as soon as possible, but no later than the end of the first year of graduate study. The composition of this committee must be reported to the department and COP Office of Graduate Education. Failure to do this may result in the Graduate School flagging the student record. The composition of the committee should consider expertise relevant to the anticipated research project. All committee members MUST hold Graduate Faculty status at UF, unless appointed as a special member. Supervisory Committees for Ph.D. students shall consist of a minimum of four members including:

- 1. the major faculty advisor, who serves as the committee chair;
- 2. at least two other members of the committee (not including the major advisor) must be from PTR;
- 3. one member of the committee must be designated as an "external member," in accordance with Graduate School policies. This person should represent a discipline which is <u>not</u> the major discipline of the Ph.D. and with no ties to COP. This includes faculty holding joint, affiliate, courtesy, or adjunct appointments in COP.

Once the supervisory committee has been established, it is the student's responsibility to submit the completed appropriate supervisory committee forms to the Office of Graduate Education.

The supervisory committee should be selected by the committee chairperson (major advisor) in conjunction with the student. If a supervisory committee member cannot be present at the qualifying exam or student's final defense, a Graduate Faculty member in the same academic area may substitute for the absent committee member. No substitutes are allowed for the chair or external member of the committee. The PTR Department Chair must indicate the reason for the absence and state that the absent member agreed to this substitution at the final examination:

Chair and Co-chair: In some cases, doctoral research may require the guidance of a specialist in an area of study other than that of the supervisory committee Chair. In such cases a co-chair may be appointed. The co-chair must also have graduate faculty status.

Other Members of the Supervisory Committee: Additional members may be added to the supervisory committee if it is deemed necessary for the student's project. Courtesy faculty and

faculty not appointed to the Graduate Faculty shall not serve any of the official roles within supervisory committee listed above. However, they may be appointed as special members, attend the final oral examination, and sign the Graduate Exam Forms.

Special Appointments: In certain cases, an individual without Graduate Faculty status may be nominated to serve on a supervisory committee through a Special Appointment. If approved, this appointment is specific only to that individual student's committee. An individual approved to serve as a Special Appointment may not serve in the role of the committee chair, co-chair, external member, or minor representative. If interested, students are encouraged to contact the COP Office of Graduate Education for more information.

Duties of the Supervisory Committee:

- Assure the student follows all regulations governing the degree sought. This does not absolve the student from responsibility for being informed about these regulations.
- Meet immediately after appointment to review the student's qualifications and discuss and approve a program of study.
- Meet to discuss and approve the proposed dissertation project and the plans for carrying it out.
- The committee is required to meet with the student at least twice per academic year.
- After every committee meeting, a Supervisory Committee Meeting Report form should be submitted to the Office of Graduate Education.

Minor Representatives: If a minor is chosen, the supervisory committee should include at least one Graduate Faculty member representing the student's minor. If the student elects more than one minor (very rare), each minor area must be represented on the supervisory committee. The Graduate Faculty member who represents a minor on a student's committee may be appointed as the external member if he/she meets all eligibility criteria.

Changes to existing Supervisory Committee: It is expected that the Supervisory Committee may change throughout progress through the Ph.D. program. A student, in consultation with the major advisor and Graduate Coordinator, can change the composition of the supervisory committee until the beginning of the semester of dissertation defense. No changes are allowed after the defense.

III. COURSE REQUIREMENTS FOR PH.D. STUDENTS

Curriculum

The curriculum provides students with advanced knowledge and skills in pharmacogenomics, pharmacokinetics, clinical research, and laboratory-based methods in clinical pharmacology. The student's dissertation research must meet the NIH definition of clinical research – "research that either directly involves individual people or uses materials of human origin, such as tissue samples, obtained through direct contact with a particular living person that volunteers and agrees to participate in a research study". A minimum of 90 graduate credit hours is required for the doctoral degree. All credits earned in the approved degree program count toward this minimum. Course work must be 5000 level or higher. Each student, together with his/her supervisory committee, will construct a course program of study specifically designed to meet the student's interest including the following core courses. If course availability prevents the student from completing any core course, the student should contact the Graduate Coordinator for acceptable

alternative courses or, after the consulting with the major advisor, the Graduate Coordinator may rarely opt to waive the requirement.

Required Course List

Course Number	Course Name	Total Required Credits
PHA6894	Introduction to Graduate Studies	1
PHA6185	Life Cycle of a Drug	1
PHA6940	Grant Writing in Pharmaceutical Sciences	1
PHA7900	PTR Journal Club (1 credit each; taken 3 times)	3
PHA6938	Research Seminar (1 credit each; taken 3 times)	3
PHA6427	Pharmacogenetics of Drug Metabolism and Transport	3
GMS7877	Responsible Conduct of Biomedical Research	1
PHA6449	Pharmacogenomic and Genomic Data Analysis	3
STA6166 & STA6167 OR PHC6052 & PHC6053	Statistical Methods in Research & Statistical Methods in Research 2 Introduction to Biostatistical Methods & Regression Methods for the Health and Life Sciences	6
PHA5132 OR PHA6125	Principles of Drug Therapy Individualization Introduction to Quantitative Pharmacology	3
GMS6848	Ensuring Rigor and Reproducibility in Clinical and Translational Research	1
PHA6910	Supervised Research	5
PHA7979	Advanced Research	Varies
PHA7980	Doctoral Research	Varies

Elective Courses

Students may choose additional graduate-level courses at the 5000 level or greater with the goal to supplement the student's education and further tailor their training to fit their research and training goals. A list of elective course options may be requested from the Graduate Coordinator. This list is not all-inclusive, but contains courses that previous students found helpful.

Additional Skills and Experience

Throughout the program duration, graduate students should develop several non-research skills to help them successfully transition to independent scientists. Communication skills are developed through required presentations in the Department seminar series, weekly journal club, as well as presentations at local and national scientific meetings. The students gain mentoring/supervising skills through working with undergraduate and professional students who work in the labs through various research training programs. The UF Graduate School Office of Graduate Professional Development also works to facilitate the professional development of graduate students in the areas of teaching, mentoring, ethics, communication, teamwork, and leadership through workshops and training. The Health Science Center also sponsors professional development seminars for graduate students.

Academic Progress

Students are required to maintain an overall GPA of at least 3.0 to remain in good standing. Grades considered passing for graduate students are C or higher (or S for courses taken pass/fail). Courses where a student receives a grade of lower than C must be repeated to receive credit for completion. If receiving a C, C+ or B- in a required graduate course, the major advisor and/or Graduate Coordinator have the option of requiring the student to repeat the course.

It is the primary responsibility of the major advisor to assure quality performance of the student. It is also the responsibility of the major advisor to document, in writing, unacceptable performance by a student. This documentation will be recorded in the COP Office of Graduate Education. The major advisor will provide the student with a written evaluation of their academic progress at the end of each academic year and discuss the evaluation with the student. The evaluation will be signed by both the major advisor and the student and kept in the student's academic file.

Probation

Any graduate student may be denied further registration if progress toward completing the program becomes unsatisfactory to the academic unit, college, or Dean of the Graduate School. Unsatisfactory scholarship is defined as failure to maintain a B average (3.00) in all work attempted. Graduate students need an overall GPA of 3.00 truncated and a 3.00 truncated GPA in their major (and in the minor, if a minor is declared) at graduation. Students with less than a 3.00 GPA may not hold an assistantship or fellowship.

In the event that a student does not have a 3.0 GPA, the student may work with the Graduate Education Office to petition the Graduate School to remain in the program. In addition, they (with their advisor) must develop an academic recovery plan that outlines the expectations of improvement by the student, as well as the consequences for not meeting those expectations. Students not meeting these expectations may be dismissed from the program.

Individual Development Plan

All Ph.D. students will be required to create and update an Individual Development Plan (IDP) on an annual basis, in consultation with their advisors. The IDP is intended to be a working document, to guide new and continuing Ph.D. students in identifying, pursuing, and meeting their professional and personal goals. Additional information is located at the <u>UF IDP policy webpage</u>. The templates for first year and 2nd-4th year students are available from COP Office of Graduate Education.

Presenting Research Findings

All students in the Ph.D. programs are expected to begin their involvement in research activities early in the graduate program. Involvement in research and the presentation of research findings in a public forum is required. Presentation of research findings may involve submitting a manuscript to a professional journal, presenting a project (poster or podium) at a research forum (e.g. the COP Annual Research Showcase), or at a professional meeting. All research presentations should be approved by the major advisor prior to submission. Students are required to have published (or have accepted for publication) at least one original research article in a peer-reviewed scientific journal. Students are also expected to present their research at the COP Annual Research Showcase yearly. All abstracts, posters, slides, or other materials that are presented or published should be shared with all co-authors (and approved by them) in advance

of submission/presentation. Plans for research presentation should be discussed during the annual evaluation and indicated in the IDP.

IV. EXAMINATIONS

Qualifying Examination

All students must pass a qualifying examination before being formally admitted as a candidate for the Ph.D. degree (admitted to candidacy). Before taking the qualifying examination, the student must have a minimum 3.0 GPA and must have completed the didactic course work required by the program. Exceptions can be made with approval by the student's supervisory committee and the department faculty. The qualifying exam will have a written and oral component and should preferably be completed by fall of the student's third year.

The written part of the examination will compose of a research proposal conforming to the formatting requirements of NIH R03/R21 grant application (1-page for specific aims, 6-page for research strategy, with no page limit for references). This proposal should also include a title page and should be submitted to the supervisory committee at least 2 weeks before the scheduled oral exam date. NIH guidelines for preparing the written proposal should be followed. The supervisory committee will determine whether the candidate has passed the written exam.

After satisfactory completion of the written portion, the oral will be administered. At least five working days before the oral exam is to be conducted, formal notices must be sent to all College faculty and supervisory committee members. <u>All members of the supervisory committee (or designated alternates) must be present at the oral qualifying exam.</u> The duration of the oral qualifying exam should not exceed 3 hours and is divided into four sections:

- 1. The first section is open to the public and consists of a research presentation (approximately 45-60 minutes) of the student's dissertation project and any results obtained up to that point. A short question and answer period with the audience (primarily trainees and non-departmental faculty) will immediately follow the presentation.
- 2. The second portion (approximately 30 minutes) is a closed oral exam where department faculty and the supervisory committee provide questions for the student to answer.
- 3. The third section is a continuation of oral exam questioning but open only to the supervisory committee.
- 4. In the fourth section, the supervisory committee deliberates (without the student) and determines final grading of the qualifying exam.

Examinations must be held in-person, with all members of the supervisory committee physically present with the student. Exceptions will only be made if the faculty member is not based in the same location or in extenuating circumstances, and with prior approval by the committee and Office of Graduate Education. The chair and/or co-chair must be physically present with the student per the UF Graduate School requirements.

Time Limitations: Between the successful completion of the qualifying examination and the date of the degree, there must be a minimum of two semesters. The semester in which the qualifying examination is passed is counted provided that the examination occurs before the midpoint of the term. All work for the doctor's degree must be completed within five calendar years after the qualifying examination, or this examination must be repeated.

Admission to Candidacy

Formal admission to candidacy (graduate student becomes a Ph.D. candidate) requires approval of the student's supervisory committee after the successful completion of the qualifying exam, as indicated to the Office of Graduate Education on the SACS Graduate Exam Form. Approval is based on:

- 1. the academic record of the student:
- 2. the opinion of his or her supervisory committee concerning his or her overall fitness for candidacy;
- 3. an approved dissertation topic;
- 4. successfully passing the qualifying examination.

The Dissertation

Every candidate for a doctoral degree is required to prepare and defend a dissertation that shows original independent investigation. Since all doctoral dissertations will be published online, work must be of publishable quality and in a form suitable for publication. Dissertations must be prepared in the format specified by the UF Graduate School and must be of acceptable breadth, depth, and quality as determined by the supervisory committee. All editorial deadlines set forth by the Department and Graduate School must be met to be eligible for graduation. These <u>deadlines</u> can be found on the Graduate School website.

Publication of Dissertation

All candidates for the Ph.D. degree are required to sign an agreement regarding electronic publication of the dissertation.

Copyright

The candidate may, for a charge, choose to copyright the dissertation. To assure receipt of the valuable Copyright Registration Certificate, the candidate must give a permanent address through which he/she can always be reached.

Final Examination

After first submission of the dissertation to the Graduate School and completion of all other work for the degree, the candidate will defend their dissertation via a final oral examination by the supervisory committee. The completed dissertation should be submitted to the supervisory committee at least 3 weeks before the scheduled defense date. The exam must take place less than six months before the degree confirmation. The duration of the defense should not exceed 3 hours and is divided into four sections:

- 1. The first section is open to the public and consists of a research presentation (approximately 45-60 minutes) of the student's dissertation project. A short question and answer period with the audience (primarily trainees and non-departmental faculty) will immediately follow the presentation.
- The second portion (approximately 30 minutes) is a closed oral exam where department faculty and the supervisory committee provide questions for the student to answer related to their project.
- 3. The third section is a continuation of oral exam questioning but only open only to the supervisory committee.
- 4. In the fourth section, the supervisory committee deliberates (without the student) and determines final grading of the exam.

Announcement of Final Examination

The student is required to notify the Office of Graduate Education by email at least two weeks before the scheduled final examination. The Office will provide the appropriate forms and then create and distribute the Final Defense announcement to the College.

Members required at the examination

At least four faculty members must be present at the oral portion of the final examination. This includes all supervisory committee members (or their designated alternates). Examinations must be held in-person, with all members of the supervisory committee physically present with the student. Exceptions will only be made if the faculty member is not based in the same location or in extenuating circumstances, and with prior approval by the committee and Office of Graduate Education. The chair and/or co-chair must be physically present with the student per the UF Graduate School requirements.

Signatures

If the candidate is successful in their final exam, the SACS Graduate Exam form shall be signed by the faculty members conducting the exam (see Members Required, above) and returned to the Office of Graduate Education for submission to the UF Student Information System. Once the dissertation document has been finalized and approved by all committee members, the signed Electronic Thesis and Dissertation (ETD) Signature page must be returned to the Office of Graduate Education to be submitted electronically to the Graduate School before the final submission deadline. The final dissertation document cannot be submitted until the ETD page has been submitted.

Certification

Doctoral candidates who have completed all requirements for the degree may request certification to that effect prior to the receipt of the degree. The student should email the Office of Graduate Education requesting a degree verification letter to attest to the student's completion of degree requirements prior to degree certification.

V. SUGGESTED TIMETABLE FOR PH.D. PROGRESSION

- **Year 1**: Begin didactic coursework; Complete faculty laboratory research rotations; select a major advisor and supervisory committee
- **Year 2**: Complete didactic coursework; Begin dissertation work and update supervisory committee (if necessary); pass oral qualifying examination
- **Year 3:** Complete didactic coursework (if not already completed); Pass oral qualifying examination (if not done so already); continue dissertation work.
- Year 4: Complete dissertation research; dissertation preparation and defense

VI. STUDENT RECORDS

All application materials, correspondence, copies of transcripts, grade sheets and other pertinent materials will be recorded and maintained by the COP Office of Graduate Education. This material is confidential and will only be available to the Graduate Coordinator, the department chair, members of the supervisory committee, and the Associate Dean of Graduate Education.

VII. SERVICE RESPONSIBILITIES

Teaching Responsibilities

Every student in the department must assist in grading or teaching courses to professional pharmacy students for at least one year. Foreign students must pass TSE or SPEAK before they are allowed to serve as teaching assistants and must arrange to take the TSE as soon as possible after their arrival. However, this is <u>not</u> a requirement to assist in grading so students who do not pass this exam will be assigned grading and administrative duties. The Graduate Coordinator, in consultation with the faculty teaching the course, will recommend TA duties to the Office of Graduate Education, who will make the assignment. Students who are assigned duties as a teaching assistant will then report to the faculty member(s) in charge of the course.

Clinical Responsibilities

Graduate students clinically trained as a pharmacist (usually with a Pharm.D.) may be expected to provide limited clinical service within the UF Precision Medicine Program during their first and second years. Students will need to become licensed in the State of Florida in order to provide this service. Several additional clinical opportunities may also be available in the areas of ambulatory care, oncology, and infectious disease. Discussions with the Graduate Coordinator and Department Chair may be required to pursue these opportunities. Overall, these experiences are expected to strengthen the student's clinical background and provide training necessary to become a translational clinician-scientist.

VIII. STUDENT TRAVEL

Students are encouraged to attend professional meetings to present their research findings during the graduate program. The University has established procedures for both domestic and international travel for faculty and students associated with attendance at professional meetings. The department also has additional procedures for personal and professional travel. All personal and professional travel must be approved by the major advisor. Students are expected to discuss the plan for funding professional travel with their research advisor in advance of submission of an abstract or accepting any offer to present.

IX. CONFLICT RESOLUTION

In the event that a conflict arises between the student and a faculty member, the following procedure should be followed:

- i. The student and faculty member should attempt to resolve the issue together. If necessary, the issue can be brought to the Supervisory Committee for resolution.
- ii. If a resolution cannot be reached within the Supervisory Committee, the Graduate Coordinator should be asked to facilitate. The Department Chair may also serve in this role.
- iii. The student can bring the issue to the attention of the Associate Dean of Research and Office of Graduate Education if either a resolution cannot be found at the departmental level or if the student would prefer to work with a facilitator from outside the department.
- iv. If resolution cannot be reached through the internal COP process, the student should contact the UF Office of the Ombudsman for further guidance.

Overall, graduate students must assume primary responsibility for their progress within the degree program. This includes, but is not limited to, maintaining a respectful and professional demeanor, committing to ethical academic and research standards, and being knowledgeable about UF and COP rules, regulations, and procedures.

X. ADDITIONAL STUDENT RESOURCES

Links

- COP Office of Graduate Education Canvas site: https://elearning.ufl.edu
- COP Office of Graduate Education Website for Current Graduate Students: https://graduateeducation.pharmacy.ufl.edu/current-students-2/
- UF Graduate School Handbook: http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf
- UF Graduate School Regulations: https://catalog.ufl.edu/graduate/regulations/

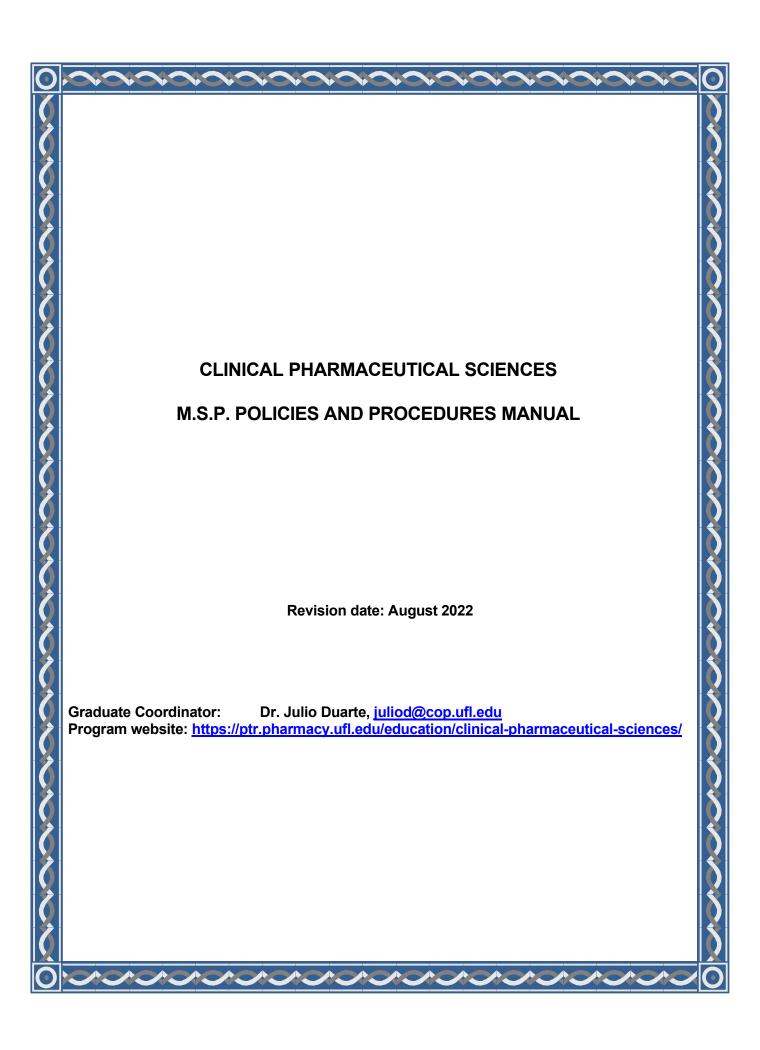


TABLE OF CONTENTS

GRADUATE PROGRAM	3
PROGRAM REQUIREMENTS	
COURSE REQUIREMENTS FOR M.S. STUDENTS	7
EXAMINATIONS	9
STUDENT RECORDS	10
STUDENT TRAVEL	10
CONFLICT RESOLUTION	10
HELPFUL FORMS AND LINKS	11

I. GRADUATE PROGRAM

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The program's overarching research focus is investigating genetic and non-genetic factors that contribute to variability in drug response. These are applied to therapeutic areas including cardiovascular disease, oncology, infectious disease, pulmonary disease, psychiatry, and clinical pharmacology.

About the Department of Pharmacotherapy and Translational Research (PTR)

The PTR Department provides classroom and clinical instruction for pharmacy students and trains graduate students in clinical translational research. In addition, the department offers a variety of clinical residencies and research fellowships as well as a MSP and PhD program in Pharmaceutical Sciences, with a concentration in Clinical Pharmaceutical Sciences. The PTR department is a national leader in the areas of pharmacy practice, education and clinical/translational research. Faculty members in the department are successful in obtaining research funding from numerous sources, including the National Institutes of Health.

The PTR Department is located in the University of Florida J. Hillis Miller Health Science Center, which includes UF Health Shands Hospital as well as the colleges of Dentistry, Medicine, Nursing, Pharmacy, Public Health and Health Professions and Veterinary Medicine. The UF Health system also encompasses six research institutes: the Clinical and Translational Science Institute, the McKnight Brain Institute, the Genetics Institute, the UF Health Cancer Center, the Institute on Aging, and the Emerging Pathogens Institute. The location of the PTR department in this complex offers a broad variety of opportunities for learning and research collaboration.

II. PROGRAM REQUIREMENTS

Admission to the M.S. Program

In order to be considered for admission, eligible applicants must complete all required application materials by the specified deadline. These materials are available from the COP Graduate Education webpage. Students are normally admitted in the fall semester but may be admitted in other semesters in extenuating circumstances. The fall application deadline generally falls on December 1 of each year. While admission decisions are made by the PTR graduate faculty, the Department adheres to the minimum standards for graduate student admissions as set forth by the University of Florida Graduate School. Applicants who hold U.S. citizenship or permanent residency and a Doctor of Pharmacy degree from an ACPE-accredited institution are often given priority in the selection process. However, all eligible applicants who hold bachelor's degree in pharmacy, biology, or related sciences will be considered. The number of positions available varies by year and depends to some extent on available funding.

Successful candidates will be informed of their acceptance into the program in writing. Students will be asked to inform the department in writing of their intention to accept this offer by $\underline{\text{April }15}$ – the deadline set by Graduate School.

Total Credits for Degree Confirmation: A total of 30 credit hours with the inclusion of at least 24 didactic course credits and at least 6 research credits.

Program Duration: Approximately 2 years.

Specific Requirements for Graduate Study

The Graduate School, located in Grinter Hall, prepares an online <u>Graduate Catalog</u>, which gives detailed information on requirements for study in graduate degree programs. The Graduate Catalog and latest Graduate School rules, including deadlines and requirements for graduation, which can be obtained from the <u>Graduate School website</u>. <u>It is the student's responsibility to stay informed of current Graduate School requirements</u>. The information in this Policies and Procedures manual does not contain the rules and requirements of the University or the Graduate School – these be found at the <u>Graduate School website</u>.

Student Responsibilities

It is the student's responsibility to stay informed of all degree requirements, including those from the Department, College, Graduate School, and University. Students must also stay informed of critical dates for their registration and progress through the program. The Graduate School generally does not grant appeals for missing deadlines. Students may also be financially liable for any course added or dropped after the enrollment deadline, including students with tuition waivers. Critical dates are available on the <u>Graduate School website</u> under the link for "Graduate Students". Students are also expected to maintain a grade point average (GPA) of 3.0 or greater throughout their progression through the program

Funding of Stipends, Tuition, and Research

Students admitted to the program are generally responsible for tuition and fees associated with matriculation. Students are encouraged to apply for fellowships and awards, particularly those that provide external funding support. These funds can be utilized to provide stipends or fund appropriate research and travel expenses.

Leave Policy

Leave of absences should be coordinated with the student's faculty advisor, the Graduate Coordinator, and the Office of Graduate Education. Questions about the leave of absence policy should be directed to the COP Office of Graduate Education.

Role of the Departmental Graduate Coordinator

The Graduate Coordinator is responsible for overseeing the overall quality of the graduate program. The Graduate Coordinator or designee reviews admission materials and ensures that requests for information are sent in a timely manner. Department personnel may assist prospective students to coordinate meetings and/or interviews. The Graduate Coordinator is responsible for advising students on general graduate policies in concert with the student's faculty major advisor. The Graduate Coordinator will meet with all new students during their first month of enrollment to review policies and expectations. The Graduate Coordinator will also oversee the process of selection of a major advisor, to ensure that each student meets with available faculty. The Graduate Coordinator will review grades each semester and notify the student and their advisor of probation status if their GPA moves below 3.0. Finally, the Graduate Coordinator will also serve as a department contact concerning policies and procedures relating to graduate education and assist with recommending students for teaching assistant duties.

Selection of a Major Advisor and Supervisory Committee

A faculty major advisor (which may include the Graduate Coordinator) must be identified for each student within the first year. Once an advisor is selected, the student should also work with their advisor to select a supervisory committee by the end of the first year. The student should meet with the supervisory committee at least twice per year and submit appropriate documentation of these meetings. Prior to supervisory committee selection, the major advisor will serve as the supervisory committee; thus students should still provide documentation of at least twice per year committee meetings.

Major Advisor: A student may select a faculty major advisor within the first year of the program. Incoming students are sometimes directly recruited by a specific faculty member (who will serve as the student's major advisor) in certain cases.

For students entering the program without a chosen mentor, the Graduate Coordinator will act as the student's supervisor until a major advisor is designated. For these students, it is mandatory to have individual meetings with selected faculty members to coordinate laboratory rotations with a goal of identifying the mentor before the end of the first year. During program orientation, faculty with potential openings in their research groups may meet with students to discuss the potential for completing a rotation. It is strongly suggested that students complete at least two laboratory rotations before formally selecting a major advisor

Changing Major Advisor: Changing a major advisor is costly to both the student and faculty member involved. Thus, this should be reserved for rare cases. Research projects are usually non-transferable from one advisor to another. If a change is warranted, the following protocol should be followed:

- 1. The student must first discuss the change with their advisor.
- 2. The student and faculty member should both submit a letter of explanation to the Graduate Coordinator and the Department Chair. The faculty member's letter should contain an overall evaluation and appraisal of the situation.

- 3. The Department Chair will evaluate the letters and discuss them with both individuals. The Chair will then make a decision regarding the requested change.
- 4. All notebooks and pertinent work/data must be left with the initial advisor unless permission to transfer them is obtained from the initial advisor.

Supervisory Committee: The supervisory committee should be appointed as soon as possible, but no later than the end of the first year. The composition of this committee must be reported to the department and the Graduate School. Failure to do this may result in the Graduate School flagging the student record. The composition of the committee should consider expertise relevant to the anticipated research project. All committee members MUST hold Graduate Faculty status at UF, unless appointed as a special member. Supervisory Committees for M.S. students shall consist of a minimum of two members including:

- 1. the major faculty advisor, who serves as the committee chair;
- 2. A member of the committee who must have graduate faculty status at UF.

Once the supervisory committee has been established, it is the student's responsibility to submit the completed appropriate supervisory committee forms to the Office of Graduate Education.

The supervisory committee should be selected by the committee chairperson (major advisor) in conjunction with the student. If a supervisory committee member cannot be present at the qualifying exam or student's final defense, a Graduate Faculty member in the same academic area may substitute for the absent committee member. No substitutes are allowed for the chair of the committee. The PTR Department Chair must indicate the reason for the absence and state that the absent member agreed to this substitution at the final examination.

Other Members of the Supervisory Committee: Additional members may be added to the supervisory committee if it is deemed necessary for the student's project. Courtesy faculty and faculty not appointed to the Graduate Faculty shall serve any of the official roles within supervisory committee listed above. However, they may be appointed as special members, attend the final oral examination, and sign the Graduate Exam Forms.

Special Appointments: In certain cases, an individual without Graduate Faculty status may be nominated to serve on a supervisory committee through a Special Appointment. If approved, this appointment is specific only to that individual student's committee. An individual approved to serve as a Special Appointment may not serve in the role of the committee chair, member, or minor representative. If interested, students are encouraged to contact the COP Office of Graduate Education for more information.

Duties of the Supervisory Committee:

- Assure the student follows all regulations governing the degree sought. This does not absolve the student from responsibility for being informed about these regulations.
- Meet immediately after appointment to review the student's qualifications and discuss and approve a program of study.
- Meet to discuss and approve the proposed thesis project and the plans for carrying it out.
- The committee is required to meet with the student at least twice per academic year.
- After every committee meeting, a Supervisory Committee Report form should be submitted to the Office of Graduate Education.

Minor Representatives: If a minor is chosen, the supervisory committee should include at least one Graduate Faculty member representing the student's minor. The Graduate Faculty

member who represents a minor on a student's committee may be appointed as the other required member if he/she meets all eligibility criteria.

Changes to existing Supervisory Committee: A student, in consultation with the major advisor and Graduate Coordinator, can change the composition of the supervisory committee until the beginning of the semester of thesis defense. No changes are allowed after the defense.

III. COURSE REQUIREMENTS FOR M.S. STUDENTS

Curriculum

The curriculum provides students with advanced knowledge and skills in pharmacogenomics, pharmacokinetics, clinical research, and laboratory-based methods in clinical pharmacology. The student's thesis research must meet the NIH definition of clinical research – "research that either directly involves individual people or uses materials of human origin, such as tissue samples, obtained through direct contact with a particular living person that volunteers and agrees to participate in a research study". A minimum of 30 graduate credit hours is required for the doctoral degree. All credits earned in the approved degree program count toward this minimum. At least 50% of the minimum course work, for a master's degree must be in courses open only for graduate credit (5000 and above) in a field of study designated the major. Each student, together with his/her supervisory committee, will construct a course program of study specifically designed to meet the student's interest including the following core courses. If course availability prevents the student from completing any core course, the student should contact the Graduate Coordinator for acceptable alternative courses or, after the consulting with the major advisor, the Graduate Coordinator may rarely opt to waive the requirement.

If a minor is chosen, at least 6 credits of work are required in the minor field. Two 6-credit minors may be taken with the major academic unit's permission. A 3.00 (truncated) GPA is required for minor credit.

Required Course List

Course Number	Required Core Subject	Total Required
		Credits
PHA6894	Introduction to Graduate Studies	1
PHA6185	Life Cycle of a Drug	1
PHA7900	PTR Journal Club (1 credit each; taken 2 times)	2
PHA6938	Research Seminar	1
PHA6427	Pharmacogenetics of Drug Metabolism and Transport	3
PHA6449	Pharmacogenomics	3
OR	OR	
PHA6125	Introduction to Quantitative Pharmacology	
STA6166 & STA6167	Statistics (two 3 credit courses)	6
OR		
PHC6052 & PHC6053		
GMS7877	Responsible conduct of biomedical research	1
PHA6910	Supervised research	5
PHA6971	Master's Thesis Research	Varies

**Additional courses may be required by the	
supervisory committee**	

Elective Courses

Students may take additional courses, adhering to the requirement that 50% of the minimum course work must be in at the 5000 and above. Students should consult their supervisory committee for elective course suggestions.

Additional Skills and Experience

Throughout the program duration, graduate students should develop several non-research skills to help them successfully transition to independent scientists. Communication skills are developed through required presentations in the Department seminar series, weekly journal club, and presentations at local and national scientific meetings. The students may gain mentoring/supervising skills through working with undergraduate and professional students who work in the labs through various research training programs. The UF Graduate School Office of Graduate Professional Development also works to facilitate the professional development of graduate students in the areas of teaching, mentoring, ethics, communication, teamwork, and leadership through workshops and training. The Health Science Center also sponsors professional development seminars for graduate students.

Academic Progress

Students are required to maintain an overall GPA of at least 3.0 to remain in good standing. Grades considered passing for graduate students are C or higher (or S for courses taken pass/fail). Courses where a student receives a grade of lower than C must be repeated to receive credit for completion. If receiving a C, C+ or B- in a required graduate course, the major advisor and/or Graduate Coordinator have the option of requiring the student to repeat the course.

It is the primary responsibility of the major advisor to assure quality performance of the student. It is also the responsibility of the major advisor to document, in writing, unacceptable performance by a student. This documentation will be recorded in the COP Office of Graduate Education. The major advisor will provide the student with a written evaluation of their academic progress at the end of each academic year, and discuss the evaluation with the student. The evaluation will be signed by both the major advisor and the student and kept in the student's academic file.

Probation

Any graduate student may be denied further registration if progress toward completing the program becomes unsatisfactory to the academic unit, college, or Dean of the Graduate School. Unsatisfactory scholarship is defined as failure to maintain a B average (3.00) in all work attempted. Graduate students need an overall GPA of 3.00 truncated and a 3.00 truncated GPA in their major (and in the minor, if a minor is declared) at graduation. Students with less than a 3.00 GPA may not hold an assistantship or fellowship.

In the event that a student does not have a 3.0 GPA, the student may work with the Graduate Education Office and their advisor to develop an academic recovery plan that outlines the expectations of improvement by the student, as well as the consequences for not meeting those expectations. Students not meeting these expectations may be dismissed from the program.

Presenting Research Findings

All students in the M.S. programs are expected to begin their involvement in research activities early in the graduate program. Involvement in research and the presentation of research findings in a public forum is encouraged. Presentation of research findings may involve submitting a manuscript to a professional journal, presenting a project (poster or podium) at a research forum (e.g. the COP Annual Research Showcase), or at a professional meeting. All research presentations should be approved by the major advisor prior to submission. Students are also expected to present their research at the COP Annual Research Showcase yearly. All abstracts, posters, slides, or other materials that are presented or published should be shared with all coauthors (and approved by them) in advance of submission/presentation.

IV. EXAMINATIONS

The Thesis

Most candidates for a M.S. degree will prepare and defend a thesis that shows original independent investigation. The thesis should be prepared in the format specified by the UF Graduate School and must be of acceptable breadth, depth, and quality as determined by the supervisory committee. All editorial deadlines set forth by the Department and Graduate School must be met in order to be eligible for graduation. These <u>deadlines</u> can be found on the Graduate School website.

Final Examination

Before first submission of the thesis to the Graduate School and completion of all other work for the degree, the candidate will defend their thesis via a final oral examination by the supervisory committee. The completed thesis should be submitted to the supervisory committee at least 3 weeks before the scheduled defense date. The exam must take place less than six months before the degree confirmation. The duration of the defense should not exceed 2 hours and is divided into four sections:

- 1. The first section is open to the public and consists of a research presentation (approximately 45-50 minutes) of the student's thesis project. A short question and answer period with the audience (primarily trainees and non-departmental faculty) will immediately follow the presentation.
- 2. The second portion (approximately 30 minutes) is a closed oral exam where department faculty and the supervisory committee provide questions for the student to answer related to their project.
- 3. The third section is a continuation of oral exam questioning but only open only to the supervisory committee.
- 4. In the fourth section, the supervisory committee deliberates (without the student) and determines final grading of the exam.

Announcement of Final Examination

The student is required to notify the Office of Graduate Education by email at least two weeks before the scheduled final examination. The Office will then create and distribute the Final Defense announcement to the College.

Members required at the examination

At least three faculty members must be present at the oral portion of the final examination. This includes all supervisory committee members (or their designated alternates).

Signatures

If the candidate is successful in their final exam, the Graduate Exam form shall be signed by the faculty members conducting the exam (see Members Required, above) and returned to the Office of Graduate Education for submission to the UF Student Information System before the first submission deadline. Once the thesis document has been finalized and approved by all committee members, the signed Electronic Thesis and Dissertation (ETD) Signature page must be returned to the Office of Graduate Education to be submitted electronically to the Graduate School before the final submission deadline. The final thesis document cannot be submitted until the ETD page has been submitted.

Certification

M.S. candidates who have completed all requirements for the degree may request certification to that effect prior to the receipt of the degree. The student should email the Office of Graduate Education requesting a degree verification letter to attest to the student's completion of degree requirements prior to degree certification.

VI. STUDENT RECORDS

All application materials, correspondence, copies of transcripts, grade sheets and other pertinent materials will be kept in a file to be maintained in the COP Office of Graduate Education. This material is confidential and will only be available to the Graduate Coordinator, the department chair, members of the supervisory committee, and the Associate Dean of Graduate Education.

VIII. STUDENT TRAVEL

Students are encouraged to attend professional meetings to present their research findings during the graduate program. The University has established procedures for both domestic and international travel for faculty and students associated with attendance at professional meetings. The department also has additional procedures for personal and professional travel. All personal and professional travel must be approved by the major advisor. Students are expected to discuss the plan for funding professional travel with their research advisor in advance of submission of an abstract or accepting any offer to present.

IX. CONFLICT RESOLUTION

In the event that a conflict arises between the student and a faculty member, the following procedure should be followed:

- i. The student and faculty member should attempt to resolve the issue together. If necessary, the issue can be brought to the Supervisory Committee for resolution.
- ii. If a resolution cannot be reached within the Supervisory Committee, the Graduate Coordinator should be asked to facilitate. The Department Chair may also serve in this role.
- iii. The student can bring the issue to the attention of the Associate Dean of Research and Graduate Education if either a resolution cannot be found at the departmental level or if the student would prefer to work with a facilitator from outside the department.
- iv. If resolution cannot be reached through the internal COP process, the student should contact the UF Office of the Ombudsman for further guidance.

Overall, graduate students must assume primary responsibility for their progress within the degree program. This includes, but is not limited to, maintaining a respectful and professional demeanor,

committing to ethical academic and research standards, and being knowledgeable about UF and COP rules, regulations, and procedures.

X. ADDITIONAL STUDENT RESOURCES

<u>Links</u>

- Graduate Program Canvas site: https://ufl.instructure.com/courses/414304
- Current Graduate Students: https://graduateeducation.pharmacy.ufl.edu/current-students-2/
- UF Graduate School Handbook: http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf
- UF Graduate School Regulations: https://catalog.ufl.edu/graduate/regulations/