



University Council

January 15, 2021

UNIVERSITY CURRICULUM COMMITTEE – 2020-2021

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Ex-Officio – Provost S. Jack Hu

Undergraduate Student Representative – Jeremiah de Sesto

Graduate Student Representative – Gerena Walker

Dear Colleagues:

The attached proposal from the College of Pharmacy to offer the existing major in Pharmacy (M.S., Ph.D.) with an Area of Emphasis in Clinical and Experimental Therapeutics in Augusta will be an agenda item for the January 22, 2021, Full University Curriculum Committee meeting.

Sincerely,

John Maerz, Chair

University Curriculum Committee

cc: Provost S. Jack Hu
Dr. Rahul Shrivastav

PROPOSAL FOR AN EXTERNAL DEGREE

Date: July 29, 2020

School/College: College of Pharmacy

Department/Division: Clinical and Administrative Pharmacy

Program (Major and Degree): Pharmacy (M.S.) and Pharmacy (Ph.D.)

Which campus(es) will offer this program? Augusta

Will any approved areas of emphasis be offered under this major? Clinical and Experimental Therapeutics

Proposed Effective Date: Spring 2021

1. Assessment

The purpose of the Area of Emphasis in Clinical and Experimental Therapeutics (CET) offered under the majors in Pharmacy (M.S.) and Pharmacy (Ph.D.) in the University of Georgia (UGA) College of Pharmacy is to provide doctoral and master's training in clinical and therapeutics-related research that directly connects the basic science laboratory with the clinical practice setting. The program was created to address one of the primary goals of the UGA Biomedical Sciences and Health Initiatives that was intended to enhance the interdisciplinary interactions between UGA and what is now Augusta University. This is a unique program that emphasizes an interdisciplinary and translational approach to graduate training. For this reason, the program is located adjacent to the Augusta University Medical School Campus. This allows faculty and students to conduct translational research. This Ph.D. and M.S. area of emphasis in Clinical and Experimental Therapeutics is a multi-disciplinary program that involves the investigation of disease processes, drug development, and the efficacy and toxicity of therapeutic regimens. The program is designed so that students develop specific competencies in clinical and experimental therapeutics that are translational among the basic, applied, and clinical settings. Course requirements and research opportunities for graduate students enrolled in the program provide both experimental (basic) and clinical science experience. Compared with the existing programs in the basic medical sciences, the CET curriculum provides a greater emphasis on the clinical relevance of research studies while maintaining rigorous instruction in experimental design, statistical analysis, and hypothesis testing. It also recognizes the emerging research interests of those holding the Doctor of Pharmacy (Pharm.D.) degree, as well as Pharm.D. candidates, and provides a viable career path for those who prefer more extensive research experience than provided by traditional residencies or fellowships.

This program also sets the environment for the development of Pharm.D./M.S. and Pharm.D./Ph.D. programs, which is a more focused approach to train biological scientists in translational research than the standard Ph.D. or M.D./Ph.D. programs.

2. Admission Requirements

The CET Graduate Faculty admits students directly into the M.S. and Ph.D. programs of study on a competitive basis. Students wishing to enter a program of study leading to a Master of Science or Doctor of Philosophy degree in Pharmacy with a Clinical and Experimental Therapeutics Area of Emphasis must possess, at a minimum, a bachelor's degree (or its equivalent) from an accredited four-year college or university as well as the required prerequisites (see below). Students who are admitted to the Ph.D. program are eligible for Ph.D. candidacy once they have completed all the requirements for such, but are not required to obtain an M.S. degree prior to their application for candidacy for the Ph.D. Applications must be submitted to the UGA Graduate School.

3. Program Content

Required Ph.D. Core Courses: A majority of 8000 and 9000-level courses or the equivalent, with some exceptions on courses at the 7000-level

Laboratory Rotation (a minimum of 3 different laboratories)

Suggested course schedule:

Year 1

- **Fall Semester (14 CR):**

Core Courses

PHRM 8600, Drug Targets in Signal Transduction Pathways (3 credit hours)

PHRM 8700, Advanced Therapeutics I (4 credit hours)

PHRM 8730, Clinical Seminar/Journal Club (1 credit hour)

PHRM 8740, Introduction to Research in Clinical and Experimental Therapeutics Research (4 credit hours)

PHRM 8750, Methods in Experimental Therapeutics (2 credit hours)

- **Spring Semester (11 CR):**

Core Courses

PHRM (HPAM) 7230, Ethical Issues in Research (3 credit hours)

PHRM 8080, Grantmanship (3 credit hours)

PHRM 8710, Advanced Therapeutics II (4 credit hours)

PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)

- **Summer Semester (7-15 CR):**

Core Courses

PHAR 7100E, Biostatistical Applications for Pharmaceutical and Biotechnology Industries (3 credit hours)

PHRM 9000, Doctoral Research (4-12 credit hours)

Year 2

- **Fall Semester (9-13 CR):**

Core Courses

PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)

PHRM 9000, Doctoral Research (8-12 credit hours)

- **Spring Semester (9-13 CR):**

Core Courses

PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)

PHRM 9000, Doctoral Research (8-12 credit hours)

- **Summer Semester (8-12 credit hours):**

PHRM 9000, Doctoral Research (3-12 credit hours)

PHRM 9300, Doctoral Dissertation (3-12 credit hours)

Required MS. Core Courses: (7000 and above-level or the equivalent)

Laboratory Rotation (2 different laboratories)

Year 1

[For students opting for a 2-year (thesis) OR 1-year (non-thesis) option]

- **Fall Semester (15 CR):**

Core Courses

PHRM 8600, Drug Targets in Signal Transduction Pathways (3 credit hours)

PHRM 8700, Advanced Therapeutics I (4 credit hours)

PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)
PHRM 8740, Introduction to Clinical and Experimental Therapeutic Research (4 credit hours)
PHRM 8750, Methods in Experimental Therapeutics (2 credit hours)

- **Spring Semester (11 CR):**

Core Courses

PHRM 7230, Ethical Issues in Research (3 credit hours)
PHRM 8080, Grantmanship (3 credit hours)
PHRM 8710, Advanced Therapeutics II (4 credit hours)
PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)

- **Summer Semester (7-15 CR):**

Core Courses

PHAM 7100E, Biostatistical Applications for Pharmaceutical and Biotechnology Industries (3 credit hours)
PHRM 7000, Master's Research (4-12 credit hours)

Elective Courses

PHRM 7500, Introduction to Clinical Therapeutics (2 credit hours)

Year 2 (Minimum of 32 credit hours required)

[For students opting for a 2-year (thesis) option]

- **Fall Semester (12 CR):**

Core Courses

PHRM 7000, Master's Research (11 credit hours)
PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)

- **Spring Semester (13 CR):**

Core Courses

PHRM 7000, Master's Research (11 credit hours)
PHRM 8730, Clinical Seminars/Journal Club (1 credit hour)

- **Summer Semester (12 credit hours):**

PHRM 7300, Master's Thesis Dissertation (12 credit hours)

Additional courses may be required depending on a student's academic and professional background and the discretion of the student's advisory committee. Students not exhibiting excellent written and/or oral communication skills will be required to take various courses to correct these deficiencies.

In both the PhD and MS programs, the major professor counsels the student in pursuing his or her program of study and advises the student concerning procedural steps in the graduate program. The major professor advises the student in choosing and pursuing a research topic, the preparation of a dissertation, and obtaining admission to candidacy. Since the major professor serves as the primary mentor for the student, the student should make this choice only after careful thought and consideration. The student selects a major professor by the beginning of the second academic year. The choice of a major professor will be contingent upon the mutual consent of the student and the faculty member. The major professor must be a full member of the UGA Graduate Faculty and a core CET faculty member. Upon selection of a major professor, the student must notify the director of the CET program and the department graduate coordinator in writing. The final approval of the document regarding the student's selection of a major professor requires the signature of the Department Head. While a change of major professor is possible after the original selection and approval, this will only be allowed under extenuating circumstances and for justifiable reasons. Requests for such a change, including the justification, must be submitted to the director of the CET program and the department graduate coordinator in writing. As in the case above, final approval of the document regarding the student's change of major professor requires the signature of the Department Head.

For the **Doctor of Philosophy degree**, each student will form a Dissertation Advisory Committee by the end of the 5th semester (spring of the second year). This committee will approve the Program of Study and dissertation prospectus and conduct the preliminary examinations and dissertation defense. The major professor and student will keep the Dissertation Advisory Committee regularly informed of progress. The advisory committee will include at least five members, including the major professor, two additional CET graduate faculty, and one UGA graduate faculty member from outside of CET. The fifth committee member can be from within the department or from outside of UGA. Students are encouraged to collaborate with Augusta University (AU) faculty. If a non-UGA graduate faculty member is selected, a request must be submitted to the UGA Graduate School. The request requires a letter of justification from the major CET faculty advisor and current curriculum vitae of the non-UGA faculty member. Dissertation Advisory Committee members must be approved by the Graduate Coordinator and the dean of the Graduate School. Once a dissertation committee is formed, members may not be removed without their written permission. (NOTE: a majority of graduate faculty must be selected (e.g., if there are 6 committee members, 4 will need to have graduate faculty status; or one member can have a non-voting status).

For the **Master of Science degree**, each student will form a Dissertation Advisory Committee by the end of the 2nd semester (spring of the first year). This committee will approve the Program of Study and dissertation prospectus and conduct the preliminary examinations and dissertation defense. The major professor and student will keep the Dissertation Advisory Committee regularly informed of progress. The advisory committee will include at least three members, including the major professor, one additional CET graduate faculty, and one UGA graduate faculty member from outside of CET or from AU with UGA graduate school permission. If a non-UGA graduate faculty member is selected, a request must be submitted to the UGA Graduate School. The request requires a letter of justification from the major CET faculty advisor and current curriculum vitae of the non-UGA faculty member). Dissertation Advisory Committee members must be approved by the Graduate Coordinator and the dean of the Graduate School. Once a dissertation committee is formed, members may not be removed without their written permission.

4. Student Advising

Upon entering the CET graduate program, students will be advised by the Program Director until the student selects a major professor. The Director will assist the student in establishing a course of study during the first academic year that will include correcting any deficiencies, incomplete prerequisites, and required graduate courses. During the first two semesters of graduate study, the student should visit with all CET graduate faculty members to discuss their research interests. Laboratory rotations (up to three laboratory rotations of 10 weeks each) beginning the first semester of enrollment will assist the student in matching his/her research interests with that of a potential major professor.

The CET Graduate Program Committee acts as an advisory committee until the student chooses a major professor and Dissertation Advisory Committee. The Program Director meets with all graduate students each spring to discuss program changes or issues. At this time, each student is given a student advisory form to request a meeting to discuss progress or problems in detail and in confidence with the Program Director, Graduate Coordinator, or another member of the graduate program committee.

Students will select a major professor at the end of a two-semester laboratory rotation sequence. The choice of the major professor will be contingent upon the mutual consent of the student, the faculty member, and the Graduate Coordinator. The major professor will direct the student's research and meet with the Dissertation Advisory Committee at least once per year to discuss research and academic progress of the student. It is the major professor's responsibility to seek funding for the graduate student and their research.

5. Resident Requirements

Resident requirements are identical to those established for the Athens-based programs, with residence in the Augusta location serving to meet that requirement.

6. Program Management

For full details about management of the program, please review the program handbook <http://rx.uga.edu/wp-content/uploads/2020/06/CET-PROGRAM-HANDBOOK-2020.pdf>. Additionally, the College of Pharmacy has a committee for Undergraduate and Graduate Education. This committee includes the program directors for all non-Pharm.D. degrees offered in the College. This committee provides oversight and guidance to all graduate programs as it relates to course approval, assessment of student learning, equity, and management of these programs.

7. Library and Laboratory Resources

The College has a dedicated university librarian in Athens who provides consultation to the faculty, staff, and students regarding access to literature and other resources necessary for the accomplishment of the mission. On the Augusta campus, the same procedure is utilized for accessing electronic library resources of the University of Georgia, and local library support is provided in some instances. Students, faculty, preceptors, instructors, and teaching assistants have access to a wide range of electronic resources to support the various programs across multiple campuses. The College purchases Access Pharmacy (\$45K annually) to provide uniform access to relevant resources across the state.

8. Budget

Personnel: 4 X 1 FTE Tenure-track Faculty (9 month appointment):	\$500,000
Benefits:	\$100,000
Laboratory support for Charlie Norwood VAMC:	\$40,000
Laboratory maintenance for HM lab facility:	\$40,000
Total Yearly Costs:	\$680,000

All four of the current faculty have extramurally funded research programs, from which the entire laboratory costs (indirect costs) and up to 50% of the personnel costs are covered. Student project costs (supplies) are covered by the individual faculty member. All of the above costs will be internally allocated to this program. The CET program has maintained an Augusta enrollment of 5 M.S. students and 5-7 Ph.D. students from 2018- present.

9. Program Costs Assessed to Students

There are no additional costs assessed to Augusta students beyond the normal costs for a graduate student in Athens.

10. Accreditation

No external accreditation is expected or required.

Documentation of Approval and Notification

Proposal: Offer the Existing Major in Pharmacy (M.S., Ph.D.) with an Area of Emphasis in Clinical and Experimental Therapeutics at Augusta

College: College of Pharmacy

Department: Clinical and Administrative Pharmacy

Proposed Effective Term: Spring 2021

Department:

- Clinical and Administrative Pharmacy Department Head, Dr. Brad Phillips, 8/13/20

School/College:

- College of Pharmacy Dean, Dr. Kelly Smith, 8/5/20
- Augusta Campus Dean, Dr. Susan Fagan, 8/5/20

Graduate School

- Graduate School Dean, Dr. Ron Walcott, 10/14/20