PharmD/PhD Combination Degree Program

College of Pharmacy University of Louisiana Monroe

Introduction:

The College of Pharmacy at the University of Louisiana Monroe (ULM) is Louisiana's only publicly supported comprehensive center for pharmaceutical education, research, and service. The college includes several modern specialized instructional and health service facilities and numerous affiliated off-campus teaching hospitals and pharmacies throughout the state.

The practice of pharmacy is a vital part of a complete health care system. Pharmacists are professionals who are uniquely prepared and available, committed to public service and to the achievement of improved healthcare. Pharmacists are the principal resource to patients and other health professionals in assuring appropriate use of and optimal therapeutic outcomes for medications.

Students interested in pursuing a career in clinical and basic science research may be interested in a combined PharmD/PhD degree. In addition to completing the curriculum of the PharmD program, the combination degree student will also complete the curriculum of either the pharmaceutics, medicinal chemistry, pharmacology or toxicology concentration of the PhD in Pharmacy degree. Some coursework will overlap between the two degree programs. The combination degree program requires a high level of academic commitment due to the additional responsibilities of working simultaneously on two rigorous academic degrees. In addition to the PharmD coursework, students of the combined degree program will complete the didactic course requirements and the other degree requirements of the PhD program.

The combination of a clinical pharmacy degree with that of a pharmacy research degree offers a competitive advantage for students interested in pursuing careers in academics, pharmaceutical science research, pharmaceutical industry, government service (National Institutes of Health, Food and Drug Administration and the Center for Disease Control) and many other settings. A student trained in both clinical and research sciences will be able to participate in a broader range of clinical and research experiences in the above areas and more. Translational research is an area which a researcher can take bench research to the "bedside", and a researcher with dual training is well positioned to undertake such research. There is also a vital role for clinical scientists with more research training than post-graduate residencies and fellowships are able to offer. Therefore, there is a large demand for researchers with this type of dual training.

PharmD Program:

The Doctor of Pharmacy degree is the highest level of applied professional education offered in pharmacy. It is designed to assure development of clinical skills and judgment with the acquisition of the confidence necessary to assess therapeutic problems and to be an active participant in decision-making processes related to pharmaceutical care. The program is designed to provide a broad spectrum of study in the administrative, biological, clinical, pharmaceutical,

and social sciences to prepare the graduate for careers in academic, ambulatory, community, industrial and institutional settings.

In addition to meeting minimum course grade requirements, students must meet programmatic requirements for graduation which may include but not be limited to attendance at student convocations, participation in professional development programs, co-curricular requirements and successful completion of progression and/or competency exams. The curriculum prepares all students to provide entry-level, patient-centered care in a variety of practice settings as a contributing member of an interprofessional team. The didactic and experiential curricula include opportunities for students to learn about, from, and with other members of the interprofessional healthcare team.

PhD Program:

The Doctor of Philosophy degree in Pharmacy is awarded by the Graduate School through the College of Pharmacy. Students must select a major specialization from among the areas of Medicinal Chemistry, Pharmaceutics, Pharmacology, and Toxicology. The program leading to the degree normally shall be the equivalent of not less than three years of graduate study beyond the baccalaureate degree.

After admission to the degree program by the Graduate School, the student is referred to the School Graduate Coordinator in his area of interest. The School Graduate Coordinator may assist the student in the selection of course work for the first semester or assign the student to a temporary major professor for initial advising. During the first semester of enrollment, the student's major professor of their graduate advisory committee will direct the student's research. Original research is an integral part of the Doctor of Philosophy program. As soon as possible, but not later than the second regular semester of enrollment, the student with his advisory committee must file an approved dissertation topic with the School Graduate Coordinator. The graduate advisory committee shall consist of not less than four approved members of the graduate faculty and be mutually acceptable to the student and the committee members, including the major professor. The committee members must be representative of the general field of study in which the student expects to perform his/her work. The major professor and the graduate advisory committee must be approved by the College of Pharmacy Graduate Studies Committee, the Dean and the Dean of the Graduate School.

Although there are specified course requirements which must be completed for the Doctor of Philosophy degree, the degree is not awarded on the basis of time spent in the program or following the completion of any specific number of formal courses. The Doctor of Philosophy degree is not granted on the basis of miscellaneous course studies and research effort, but the program must be competency based and research oriented to produce a dissertation of literary and scholarly merit denoting the student's capacity for original, independent research in a particular field of specialization pertaining to one of the pharmaceutical sciences.

Program Overview:

The combination degree program consists of two distinct degree programs with overlapping coursework to allow the student to complete two degrees in a dual format in less time that it would take to complete both degrees separately. The current PharmD degree requires 10 credit

hours of didactic elective courses which the dual degree student can use to complete some of the required coursework for the PhD degree. In addition, the following PharmD courses have graduate counterparts which will allow the student to apply PharmD course credit towards the PhD degree. Should the student desire to pursue the PhD degree, he or she should register for the graduate equivalent of the PHRD course to receive credit in the graduate program. Since most of these courses are contained in the P1 year, students are encouraged to plan ahead with regard to course selection.

Doctor of Pharmacy (PharmD) Courses:

PHRD 4002	Principles of Drug Action I	4 credit hours
PHRD 4012	Pathophysiology I	3 credit hours
PHRD 4033	Drug Information Retrieval	3 credit hours
PHRD 4027	Principles of Drug Action II	2 credit hours
PHRD 4035	Pathophysiology II	3 credit hours
PHRD 4052	Research Methods and Literature Evaluation	3 credit hours
PHRD 4056	Biopharmaceutics and Pharmacokinetics	3 credit hours
PHRD 5064	Problems	1-9 credit hours

Doctor of Pharmacy (Graduate PhD) Courses:

PHAR 5139	Molecular and Theoretical Foundations	4 credit hours
PHAR 5016	Pathophysiology I	3 credit hours
PHAR 5033	Drug Information Retrieval	3 credit hours
PHAR 5027	Principles of Drug Action II	2 credit hours
PHAR 5036	Pathophysiology II	3 credit hours
PHAR 5053	Research Methods and Literature Evaluation	3 credit hours
PHAR 5013	Pharmacokinetics	3 credit hours
PHAR 5059	Problems	1-9 credit hours

Upon graduation from the PharmD program, the student will complete the remainder of the graduate coursework and conduct research for the dissertation and other research requirements of the program.

Application Process:

1. Prerequisite Requirements:

- a. Current enrollment in the PharmD program.
- b. Good standing and successful completion of the first year PharmD program with a minimum cumulative professional GPA of 3.5 and receipt of the Bachelor of Pharmaceutical Sciences (BSPS) degree or other previous undergraduate degree.

The requirement of the GRE is waived for PharmD students due to successful completion of the PCAT exam.

- c. Complete and submit the Pharmacy-PhD Application through PharmGrad.
- d. Obtain signature approvals from the College of Pharmacy Associate Dean for Academic Affairs and the Director of Graduate Studies to validate a student applicant meets qualifications for the combination degree program.

2. Other Requirements:

- a. **Application submission date** Students may apply for the combination PharmD/PhD degree during the spring semester of the P1 year (or thereafter); acceptance into the program will be pending as based on completion of the above requirements.
- b. **Admission approval notification date** Students will be notified of pending acceptance and of final admission after a student's application has been processed and upon completion of the above requirements.
- c. **Primary student major** A student's primary major <u>must</u> remain as PharmD in Banner for students enrolled in the PharmD/PhD combination degree program.
- d. **Advisement for class enrollment** Students will meet with both their PharmD advisor and their graduate major advisor during posted advising time periods to determine optimal semester class enrollment.
- e. **Maintain a 3.0 cumulative PharmD GPA** If a combination degree student's cumulative PharmD GPA falls below 3.0, the student will be required to put the PhD on hold until the PharmD GPA returns to 3.0 or greater or after completion of the PharmD degree.
- f. Meet academic standards compliance for both PharmD and PhD programs Combination degree students are required to remain in compliance with the academic standards of each degree granting unit. For example, a student has to satisfy the College of Pharmacy GPA requirements solely on the basis of graded pharmacy school coursework, <u>and</u> a student has to satisfy the Graduate School's GPA requirements solely on the basis of graded graduate coursework taken within the Graduate School.
- g. Completion of all PhD degree requirements.
 - Completion of the PharmD Research Concentration
 - 1. Summer Research Program in the summers after the P1 and P2 years with enrollment in the PHRD 5064 research elective. This will be completed in addition to the required Introductory Pharmacy Practice Experience (IPPE). This program is a chance for the student to explore areas of research interest and major professors prior to beginning focused graduate research. It requires active participation in a summer research project under the supervision of a graduate faculty member, a written summary of the research findings with presentation of their research in a research forum such as the College or University Research Symposium.
 - 2. Participation in Graduate Seminars
 - 3. Completion of at least one research Advanced Pharmacy Practice Experience (APPE) elective during the P4 year.
 - Completion of all PhD coursework (minimum of 30 credit hours of coursework plus a minimum of 30 additional semester hours of seminars, dissertation research and directed study). Some of this coursework can be combined credit for PharmD and PhD.
 - Complete a written dissertation with defense.
 - Pass a comprehensive written at the completion of 100 percent of coursework listed on the student's degree plan or be enrolled in all courses listed on the student's degree plan.

- h. **Completion of PharmD and PhD degrees** The student will not be able complete the PhD degree at the same time as the PharmD degree due to the requirements of the PhD degree. The student also may not complete the PhD degree prior to completing the PharmD degree.
 - The student must apply to the Graduate School for re-entry into the Graduate School and Pharmacy PhD program and submit the Graduate School application fee upon graduating with the PharmD degree. The application process should be completed during the spring of the P4 year.
- i. **Stipends** A research or teaching stipend may be available after completion of the PharmD degree and upon acceptance into the Graduate Program. The student should consult their major professor or Director of COP Graduate Studies.

More Information

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- 3. Michael Cockerham, MS, PharmD; Associate Dean for Academic Affairs, cockerham@ulm.edu