## **Program Description**

## PHARMD/PHD DUAL DEGREE PROGRAM

## Ernest Mario School of Pharmacy Rutgers, The State University of New Jersey

Note: Interested PharmD students should contact Associate Professor Andrew Gow (gow@rci.rutgers.edu) to learn more and to discuss their academic goals.

The Ernest Mario School of Pharmacy has established a dual PharmD/PhD program to meet the needs of interests of exceptionally bright and highly motivated students. The program enables students to complete both degrees in approximately nine years by beginning their PhD coursework and research while still enrolled in the PharmD program. Qualified students are able to matriculate into the Graduate Program in Pharmaceutical Science, the Joint Graduate Program in Toxicology, or the Graduate Program in Medicinal Chemistry at the end of their 2 professional year in the PharmD program.

Given the high cost of tuition and the many years of study required for the graduate degrees, we believe a dual degree program that reduces the total time in university will be attractive to high achieving students with strong research interests. We wish to incentivize enrollments in this experimental curriculum further by providing robust scholarship support. We expect to provide tuition remission plus a stipend for dual degree candidates in the 3 and 4 professional years of the PharmD program. In the subsequent years, students will be supported by a mix of teaching assistantship and external grant-funded graduate fellowship positions.

Key elements of the program are described below:

- 1. PharmD students complete two years of pre-pharmacy courses (PP1 and PP2) and enter the professional program in their third year at the university. The PharmD program requires four years of study (P1-P4). Students will enter the dual degree program upon completion of their P2 year, i.e., their fourth year at the university. By the end of the P2 year, these students will have earned approximately 69 undergraduate credits (including general education requirements) in the pre-professional program and another 75 credits in the first two years of the professional program. Therefore, they will be applying to the PhD program at the end of their fourth year at the university, and will have completed approximately 144 credits.
- 2. Applicants to the dual degree program must meet the entry criteria, including academic performance standards and GRE scores as set by the Graduate Program and an interview by a member of the Dual Degree faculty committee (see #3 below). Students will be admitted into the dual degree program and into either the Graduate Program in Pharmaceutical Sciences, the Joint Graduate Program in Toxicology, or the Graduate Program in Medicinal Chemistry.
- 3. Because these students are beginning their PhD work while still completing their professional doctorates, they will need special advising. A Dual Degree faculty committee, with representatives of the two graduate programs, will oversee advising and support for these students.

- 4. A special curriculum will be coordinated within the PharmD program for students interested in research. This will consist of two elective courses designed specifically for this program (which will be offered in the slot of Professional Electives 1 & 2 in the current PharmD curriculum). The third Professional Elective will be a laboratory research experience, similar to a research rotation.
- 5. At this point in the curriculum (completion of 2nd professional year) students wishing to enter the PharmD/PhD program will have completed the preparatory research curriculum. They will then spend their summer in course work that is appropriate to the two programs and in doing a research rotation (~8 to 12 credits for the summer).

  8-12 grad cr
- In the 3rd professional year dual degree students will take the same classes as PharmD students but the two professional electives would ideally be ones that are appropriate to one of the PhD curricula. While PharmD professional electives are typically 2 credits, these graduate courses will be 3 graduates credits each.
   6 grad cr
- 7. PharmD students begin their eight required advanced pharmacy practice rotations immediately after completing the third professional year. During their final year in the professional program (P4 year), dual degree PharmD/PhD students will conduct further research rotations (earning about 3-6 graduate credits) while they complete the rotations. They will also take up to 10 additional credits of graduate course work in their final year in the PharmD program. Most of the courses that would be appropriate for students at this level are offered late in the date or in the evening (in order to allow working students to take part) and therefore scheduling should not be too difficult. up to 16 grad cr
- 8. Dual degree students will target their course work to meet the requirements of the PhD program into which they have been admitted. However, each program should offer courses that can be transferred between programs, as students may wish to transfer from one graduate program to another. The Dual Degree committee will play a key role in helping students during this early phase of their PhD work. By the end of the 4th professional year, students will have earned about 30 credits that may be applied towards the PhD program requirements.
- 9. Students will complete the PharmD and graduate with their classmates at the end of the P4 year. They will then remain in graduate school for approximately three years, while engaged predominantly in research with a mentor and advisory committee. Over this time the students will complete required coursework and conduct research in their chosen laboratory in accordance with the curriculum of their respective program. Therefore, students can fulfill the requirements of both degrees in six plus three years.

Please refer to the website of the graduate program of your choice for specific information about requirements:

Graduate Program in Pharmaceutical Science
Joint Graduate Program in Toxicology
Medicinal Chemistry Graduate Program