

# Pharmaceutics

## Overview

Graduate education in Pharmaceutics at the James L. Winkle College of Pharmacy places a strong emphasis on understanding and exploiting the scientific principles that affect absorption, distribution, and elimination of pharmaceuticals, toxins, and cosmetics. Research results published by current and recent graduates from this program contribute to the advancement of cosmetics and drug development. To learn details of ongoing research projects Pharmaceutics, please visit the websites of the following faculty:

- [Pankaj B. Desai, Ph.D.](#) (pharmacokinetics, drug metabolism)
- [Gerald B. Kasting, Ph.D.](#) (percutaneous absorption, mathematical models)
- [Kevin Li, Ph.D.](#) (transport, drug delivery)
- [Giovanni M. Pauletti, Ph.D.](#) (molecular pharmaceutics, rational design of nanocarriers)
- [Randall R. Wickett, Ph.D.](#) (skin and hair measurements, evaluation of cosmetic products)

## Curriculum

Course work for graduate students entering the program with an emphasis in Pharmaceutics consists of didactic and research courses. To balance core competencies in the diverse field of Pharmaceutics with high-quality training in the subspecialty of interest core courses are supplemented with special emphasis courses such as molecular biology of the cell, regression analysis, diffusion, dissolution, and mass transport in pharmaceutical systems, skin care science, biomedical research design, and chemical separation. The supervisory professor will assist students tailoring their education to match their specific interests:

### Doctor of Philosophy (Ph.D.)

Courses	Graduate Credits
A. Core Courses/Special Emphasis Courses: <sup>a)</sup>	30
• Ethics in Research (1 graduate credit)	
• Statistics (6 graduate credits)	
• Seminar in Pharmaceutical Sciences (3 graduate credits)	
• Advanced Pharmaceutics (4 graduate credits)	
• Special Emphasis Courses relevant to subspecialty of interest (16 graduate credits)	
B. General Electives/Research Courses: <sup>a)</sup>	60
C. Ph.D dissertation research	<u>45</u>
	<b>Total: 135</b>

### Master of Science (M.S.)

Courses	Graduate Credits
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A. Core Courses/Special Emphasis Courses: <sup>a)</sup>	21
<ul style="list-style-type: none"> <li>• Ethics in Research (1 graduate credit)</li> <li>• Statistics (3 graduate credits)</li> <li>• Seminar in Pharmaceutical Sciences (1 graduate credits)</li> <li>• Advanced Pharmaceutics (4 graduate credits)</li> <li>• Special Emphasis Courses relevant to sub-specialty of interest (12 graduate credits)</li> </ul>	
B. General Electives/Research Courses: <sup>a)</sup>	9
C. M.S. thesis research	<u>15</u>
<b>Total:</b>	<b>45</b>

<sup>a)</sup>Full-term course taught over a period of 10 weeks

***Admission***

To understand the administrative process it is imperative to submit all requested documents according to the specified deadlines. Please follow [http://pharmacy.uc.edu/msphd\\_admissions.cfm](http://pharmacy.uc.edu/msphd_admissions.cfm) for more details on the application process.

***Contact Us***

If you have questions about the graduate program or the application process please contact Ms. Marcia Silver ([marcia.silver@uc.edu](mailto:marcia.silver@uc.edu)). For research-related information please contact individual faculty member directly.