

# PHARMACEUTICAL PRODUCT DEVELOPMENT PROGRAM

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117A The Science Complex South  
610-436-2939  
Pharmaceutical Product Development (<http://www.wcupa.edu/pharm/>)

Dr. Simpson (tsimpson2@wcupa.edu), *Director*

Although there are no graduate degrees in Pharmaceutical Product Development, the program does offer, on a limited basis, graduate courses in this area to graduate students from other programs of study.

## Faculty

### Professors

John Gault (jgault@wcupa.edu) (1991)  
B.S., U.S. Naval Academy; M.B.A., University of Pennsylvania; Ph.D., Drexel University

Randall H. Rieger (rrieger@wcupa.edu) (2000)  
Graduate Coordinator, Mathematics  
B.A., Bowdoin College; M.S., Ph.D., University of North Carolina

Joan Woolfrey (jwoolfrey@wcupa.edu) (2000)  
B.S., North Dakota State University; M.A., The New School for Social Research; Ph.D., University of Oregon

### Associate Professors

James R. Pruitt (jpruitt@wcupa.edu) (2011)  
B.S., Ph.D., University of California

Thomas R. Simpson (tsimpson2@wcupa.edu) (2016)  
Director, Pharmaceutical Product Development Program  
B.S., Allegheny College; M.S., Ph.D., University of Rochester

## Courses

### PPD

#### **PPD 535. Pharmaceutical Chemistry. 3 Credits.**

Through the use of case studies, the student will learn the role of the chemist in drug discovery and development. Specifically, target initiation, competitive surveillance, lead discovery and optimization, counterscreens for selectivity, pharmacokinetics, selection criteria for entering development and synthetic optimization will be elucidated.

PPD 535 Prerequisite: Successful completion of CHE 232, with a minimum grade of C-.

#### **PPD 581. Drug Design I. 3 Credits.**

This introductory graduate level course provides an overview of the pharmaceutical industry and the drug development process, including lectures of each phase of the process and the organization of a typical pharmaceutical company. In addition to weekly reading assignments students will be expected to analyze specific case studies on a weekly basis.

#### **PPD 582. Drug Design II. 3 Credits.**

This graduate level course provides an overview of the pharmaceutical industry and the drug development process, including lectures of each phase of the manufacturing process and drug development process including the role of regulatory and government affairs in drug development. In addition to weekly reading assignments students will be expected to analyze specific case studies on a weekly basis.

#### **PPD 583. Drug Design III. 3 Credits.**

This graduate level course provides an overview of the pharmaceutical industry and the drug discovery process, including lectures on the use of computers in drug design the newest targets for development as well as lectures on proteomics, HTS and translational medicine.

#### **PPD 590. Special Topics in Drug Development. 1 Credit.**

This special topics course is designed to offer in-depth seminars about novel and exciting areas of research in the field of pharmaceutical product development and drug discovery. Topics will change each semester. Invited speakers from the pharmaceutical industry will be presenting the most up-to-date information about their areas of expertise.

PPD 590 Prerequisite: Successful completion of PPD 581, with a minimum grade of C-. Repeatable for credit.