PROGRAM GOALS

The goals of the Pharmaceutical and Chemical Sciences Program curriculum are:

• to prepare students for the challenges in both basic and applied research
• to advance knowledge in pharmaceutical and chemical sciences
• to encourage fundamental discovery in the chemical, pharmaceutical and healthcare sciences
• to attain advanced degrees

GRADUATE DEGREES IN PHARMACEUTICAL AND CHEMICAL SCIENCES

The mission of the Pharmaceutical and Chemical Sciences Graduate Program (PCSP) is to prepare Doctor of Philosophy and Master of Science graduates for working in increasingly complex and integrated research in the pharmaceutical, chemical and biotechnological environment.

Our program offers students five research focus areas through four departments (see back). In addition to core courses, students also receive general training in industrial process and methodology, laboratory management, risk management and safety, instrumentation and laboratory techniques, statistics and experiential design, ethical and legal aspects of scientific inquiry, exposure to the basic, applied and clinical sciences related to the pharmaceutical industry and experience in professional presentations and data summaries.

Students selected for a graduate assistantship receive a stipend and tuition remission (see financial aid information).
Focus Areas

BIOANALYTICAL AND PHYSICAL CHEMISTRY
Investigation of chemical, biochemical and biomedical questions with the help of a broad range of computational and experimental tools, including state-of-the-art instrumentation, synthetic methods and molecular techniques. Offered through the Department of Chemistry.

CHEMICAL SYNTHESIS, DRUG DISCOVERY AND DESIGN
Discovery and development of new chemical entities as potential drugs; new methods of chemical synthesis, structural elucidation and efficacy evaluation. Offered in conjunction with the Department of Chemistry and Department of Pharmaceutics and Medicinal Chemistry.

DRUG TARGETING AND DELIVERY
Design and application of novel delivery systems for optimizing drug delivery to specific organs or other biological targets as well as pharmacokinetics. Offered through the Department of Pharmaceutics and Medicinal Chemistry.

MOLECULAR-CELLULAR PHARMACOLOGY AND TOXICOLOGY
Focuses upon investigation of the mechanisms by which drugs and other bioactive chemicals affect cellular processes. Molecular techniques are applied to studies in cell culture as well as laboratory animals. Offered in conjunction with the Department of Physiology and Pharmacology and the Department of Pharmaceutics and Medicinal Chemistry.

PHARMACOECONOMICS AND HEALTH CARE OUTCOMES AND CLINICAL SERVICES
Designed to promote the development of scholars by providing the knowledge and analytical skills necessary to evaluate the delivery and use of pharmaceutical/ health care products and services, thereby improving medication use and patient-specific outcomes, as well as reducing health care costs. Offered through the Department of Pharmacy Practice.

Financial Aid
Stipends and tuition remission are awarded to students on a competitive basis. Stipends are awarded to students serving a graduate or research assistantship. Tuition remission pertains to full or partial tuition benefits awarded to graduate assistants to help defray the cost of tuition. Many entering graduate students receive sufficient tuition remission to pay for the entire cost of tuition. Earnings from graduate stipends can be used to pay for rent, groceries and other living expenses.

Degree Requirements
The minimum requirements are 32 units and thesis for the M.S. degree and 45 units and dissertation for the Ph.D. degree.

Admission Requirements

- GRE® General Test is required. Based on the new scoring scale (taken on or after Aug. 1, 2011): min. combined score for verbal and quantitative sections is 303. Min. required score on the old scale is 1100 (Q+V) and 3 (A). Scores can be no older than 5 years.
- Bachelor’s degree with a B average (GPA of 3.0) or higher in all upper-division coursework.
- Essay or personal statement focusing on career objectives and personal ideals. Applicants must indicate focus area preference. Grammar and writing skills are an important part of the evaluation.
- Three letters of recommendation (no more than one year old).
- Official transcripts from all universities attended. International students who attend schools outside the U.S. must submit an evaluation of their academic records. Pacific accepts the following outside evaluation agencies: World Education Services (WES), www.wes.org, or Educational Credential Evaluators (ECE), www.ece.org. Check with the evaluation agency for specific document requirements.
- TOEFL (Test of English as a Foreign Language) is required for applicants whose principle language of instruction is not English. Min. acceptable TOEFL scores for admission are 550 (paper-based), or 80 (iBT). For graduate assistantship, min. TOEFL scores are 575 (paper), or 90 (iBT). Scores no older than 2 years.
- International students must submit the Certification of Finances form at the time of application or upon notification of admission by PCSP. (Supporting bank documentation no more than 6 months old).

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