

# PHARMACEUTICAL SCIENCES

Pharmaceutical sciences is the translational branch of chemistry, biochemistry, physiology and pharmacology. Basic science discoveries that identify disease processes and targets for intervention are translated by pharmaceutical scientists into therapies that directly impact patient care. This field includes drug discovery, development, and manufacturing. The research conducted by pharmaceutical scientists determines a new drug's effectiveness, optimal dosage, administration frequency, and potential complications – often leading to new inventions and therapeutic advancements.

The strength of our program lies in students from the undergraduate BS, MS, and PhD interacting across disciplines. This approach offers guidance and mentoring opportunities for students, allowing them to develop mentoring skills early in their careers. Graduates frequently express their appreciation for the nurturing environment and emphasis on peer mentoring, which is an integral part of the curriculum. Our department's mission revolves around student-centricity, interdisciplinary integration, and fostering diversity, equity, and inclusion. Guided by dedicated research advisors, our curriculum is crafted to the individual needs of students, preparing them for successful careers in the biomedical field, graduate studies, or health professions. Many of our students place in highly sought after internships in the pharmaceutical industry. The faculty members deliver innovative and interactive courses, ensuring academic excellence.

Diverse expertise within the Department of Pharmaceutical Sciences forms the core of our research philosophy and drives our success. Our department fosters groundbreaking research in pharmacology, toxicology, medicinal chemistry, and drug formulation and delivery. Many faculty members engage in preclinical studies focusing on precision medicine, bridging the gap between benchside research and clinical applications. Several faculty members have founded companies and hold multiple patents, reflecting our commitment to innovation. Many of our labs have sponsored research from state, federal, & private sectors, which exposes students to cutting-edge research and real world experiences of the type of work needed by professionals. Our students serve as pioneers in our laboratories and contribute directly to our research success. In both our labs and classrooms, innovation propels us towards breakthroughs in medical science.

## Faculty

Our department of Pharmaceutical Sciences, under the Philadelphia College of Pharmacy, has trained pharmaceutical scientists for over 200 years, and our esteemed faculty continues this tradition, educating and mentoring students as they advance in this dynamic field.

Department of Pharmaceutical Sciences Faculty (<https://www.sju.edu/departments/pharmaceutical-sciences/faculty/>)

## Programs

### Undergraduate Majors

- Pharmaceutical Sciences & Drug Development (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharm-sciences-major/>)
- Pharmacology & Toxicology (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharm-tox-major/>)

### Undergraduate Minors

- Pharmaceutical Sciences & Drug Development (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharm-sci-minor/>)
- Pharmacology (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharm-minor/>)
- Toxicology (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/tox-minor/>)

### Graduate

- Drug Development & Industrial Pharmacy (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/drug-dev-industrial-pharm-ms/>)
- Drug Discovery & Cell Gene Therapy (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/drug-disc-cell-gene-therapy-ms/>)
- Pharmacology & Toxicology (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharm-tox-ms/>)
- Pharmaceutics (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharmaceutics-ms/>)

### Graduate Certificate

- Drug Discovery & Development (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/drug-discovery-grad-cert/>)

### Doctoral

- Pharmacology & Toxicology (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharm-tox-phd/>)
- Pharmaceutics (<https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-sciences/pharmaceutics-phd/>)