



PHARMACEUTICAL SCIENCES

Imagine being a member of a coalition of researchers, educators, and practitioners from many professions who work together to improve human health. We transform students into highly skilled health care practitioners who advance the health and well-being of society. Through research, we discover, evaluate, and implement new knowledge to improve models and methods of practice in pharmacy and health sciences from the urban to global levels. Arrive at your health career destination by accepting our invitation to explore the programs of the Eugene Applebaum College of Pharmacy and Health Sciences.

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WHAT ARE THE PHARMACEUTICAL SCIENCES PROGRAMS?

The pharmaceutical sciences represent a group of interdisciplinary fields whose primary focus is on drugs—their mechanisms of action, modes of delivery, molecular design, means of disposition (absorption, distribution, metabolism, and excretion), toxic effects, and uses. The discipline, which is rooted in several areas of basic and applied science, including organic, physical, and analytical chemistry, biochemistry, cellular and molecular biology, and biomedical and materials engineering, is subdivided into three areas:

- Medicinal Chemistry: The design and chemical synthesis of new molecules for potential use as drugs or as molecular probes for the study of biochemical and physiological processes.
- Pharmaceutics: The design and formulation of drug products for optimum delivery to various body tissues.
- Pharmacology/Toxicology: The study of the biochemical and physiological mechanisms by which chemicals act on the body.

The Pharmaceutical Sciences M.S. and Ph.D programs are distinct from the Doctor of Pharmacy program, which prepares students to practice as licensed pharmacists.

WHY THE PHARMACEUTICAL SCIENCES PROGRAMS?

“The combination of challenging coursework, experienced faculty, and an environment that is highly supportive of research and mentorship gave me the skills needed to be a successful postdoctoral researcher and to obtain a faculty position in pharmaceutical sciences.”

- DENNIS BROWN
Pharmaceutical Sciences Alumnus

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WHY WAYNE STATE UNIVERSITY?

Wayne State University is a premier urban research institution offering more than 370 academic programs through 13 schools and colleges to nearly 28,000 graduate and undergraduate students. The University provides a multidisciplinary approach to research and education, and collaborates closely with government, industry and other institutions on a range of programs.

The Eugene Applebaum College of Pharmacy and Health Sciences (EACPHS) is located on one of the largest academic medical campuses in the United States and puts you in close proximity to the nation's leading health care educators. A degree from the College puts you in good company, with more than 12,000 EACPHS-educated health care professionals working in Michigan.

The Department of Pharmaceutical Sciences explores drug discovery, development, and evaluation with innovative research programs that contribute to a better understanding of the design, synthesis, delivery, disposition, and action of biologically active compounds. Our graduate students have access to leading-edge facilities that support research in drug metabolism, molecular biology, biochemical pharmacology, toxicology, neuropharmacology, medicinal chemistry, and pharmacokinetics.

HOW DO I APPLY?

Applications materials must be submitted on-line to the University Graduate Admissions Office (see reverse). Materials are then reviewed by the Department of Pharmaceutical Sciences faculty.

arrive

ADMISSION REQUIREMENTS

In general, the applicant must have an adequate background in biology, physics, calculus and chemistry. In most cases, applicants who have earned a B.S. degree in pharmacy, chemistry or the biological sciences possess adequate preparation.

In order to be considered for admission to a Department of Pharmaceutical Sciences graduate program, you need to have:

- A GPA of 3.0 or higher for the upper division of your undergraduate course work.
- A baccalaureate degree from an accredited institution, or a degree that is equivalent to a four year US baccalaureate degree.
- A completed Test of English as a Foreign Language (TOEFL) if English is not your first language.
- A statement of purpose indicating your reasons for wishing to pursue a degree in pharmaceutical sciences as well as a discussion of your area of research interest.
- Graduate Records Examination (GRE) results in the following areas:
Verbal, Quantitative, and Writing

Application to the department's graduate programs must be completed on-line. To apply, visit the following Web site and follow the instructions: <http://gradschool.wayne.edu/future/grad-admission.php>.

Be sure to provide official transcripts from all institutions attended. You will also need to provide three letters of recommendation (which can be directly uploaded by the letter authors).

Specific information on the department's graduate programs can be found at: <http://www.cphs.wayne.edu/psc/graduate-programs.php>



DENNIS BROWN is an Assistant Professor of Pharmaceutical Sciences (Medicinal Chemistry) at Manchester School of Pharmacy in Fort Wayne, Indiana. In that role, he teaches biochemistry and medicinal chemistry in the Doctor of Pharmacy program, while also running an independent research program. He found that "the WSU faculty and research facilities are outstanding,"

which led him to choose a career in academic research. In addition to providing an excellent collegial atmosphere, "the faculty represent the various disciplines within the pharmaceutical sciences and many are well known and respected in their fields," Brown says. He also notes the "state of the science" Eugene Applebaum College of Pharmacy and Health Sciences building, which houses most of the facilities and equipment necessary to conduct contemporary research.

GRADUATE APPLICATION

Office of Graduate Admissions
<http://wayne.edu/admissions/graduate>
5057 Woodward, Suite 6000
Detroit, MI 48202
877-WSU-INFO or 313-577-4723

For application information:
<http://cphs.wayne.edu/sciences/index.php>

Office of Student Financial Aid
313-577-2100
<http://wayne.edu/financial-aid/>
<http://gradschool.wayne.edu/funding/sources.php>

GENERAL INFORMATION

Eugene Applebaum College of Pharmacy and Health Sciences
Office of Student Affairs
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