

PHARMACOLOGY AND TOXICOLOGY, BS

Pharmacology and Toxicology (PharmTox) is an undergraduate major offered through the School of Pharmacy; successful completion of program requirements results in earning the Bachelor of Science–Pharmacology and Toxicology degree. Pharmacology and toxicology are related biomedical science disciplines. **Pharmacology** is the study of the sites, properties, effects, and mechanisms of drug action—the interactions of chemicals with biological systems. **Toxicology** addresses adverse effects of chemicals on humans and animals and includes exposure assessment, hazard identification, dose response assessment, and risk characterization. Both subjects integrate multiple scientific disciplines and rely on cutting-edge biotechnological approaches to gain insight into drug and toxicant action at the molecular level. Though the degree is titled “Pharmacology and Toxicology,” the program’s curriculum is multidisciplinary across various biomedical sciences.

The PharmTox degree/major has a selective and competitive admissions process, requiring completion of 60 college credits and specific prerequisite coursework. These typically take two academic years (freshman and sophomore years) to complete. Prerequisite coursework can be done at UW–Madison or at most accredited colleges and universities (see this website (<https://pharmacy.wisc.edu/programs/pharm-tox/admissions/transfers/>) for course equivalencies from other universities). Questions about course equivalencies from other colleges or universities can also be addressed with the PharmTox advisor.

At UW–Madison, pre–PharmTox students are usually in either the College of Letters & Science or the College of Agricultural and Life Sciences during their freshman and sophomore years while taking prerequisite coursework and preparing to apply to the major. Students can request to be assigned to the PharmTox advisor during this time, in addition to having a primary academic advisor in their current school. It is important to stay in contact with the PharmTox advisor to remain up-to-date with admission requirements and program changes. Applications are typically due in February, with students being admitted to the major and beginning core coursework in fall of the following year (typically junior year). The core major curriculum typically requires two years to complete (junior and senior years).

For those interested in becoming a licensed pharmacist, information about our Doctor of Pharmacy program (PharmD) can be found at <https://pharmacy.wisc.edu/programs/pharmd/>. The PharmD is required to be eligible to take the North American Pharmacist Licensure Examination (NAPLEX) and be registered and licensed as a pharmacist.