

The Ohio State University
College of Pharmacy

Pharmaceutical Sciences Minor

Undergraduate Advising
College of Pharmacy
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<https://pharmacy.osu.edu/pharmaceutical-sciences-minor>

About the Minor

The Pharmaceutical Sciences minor offers unique training for students pursuing careers in health care and the pharmaceutical industry. Flexible in design, this minor permits students from both science and non-science disciplines to learn about drug science in a variety of contexts.

Minor Requirements

The minor in Pharmaceutical Sciences requires a minimum of 12 credit hours. All students must take PHR2500. Students must fulfill the remaining 9 hours from a list of Pharmacy courses, including at least one designated contemporary issues course. Students should meet with the College of Pharmacy's undergraduate advisors to customize a program.

Required: 3 hours

PHR2500 Drug Discovery, Development, and Delivery

Electives: at least 9 hours

Students must take courses from the following list to bring total hours to 12, including at least 1 contemporary issues course (designated by *). Note: some of these courses have prerequisites that would need to be fulfilled prior to enrollment.

PHR2010* Pharmacology: How Drugs Work (3 cr hrs)
PHR2100 Career Develop in the Pharm Sciences I (0.5 cr hrs)
PHR 2101 Career Develop in the Pharm Sciences II (0.5 cr hrs)
PHR2367.01 and 2367.02 Drug Use in American Culture (3 cr hrs)
PHR2400* Addicting Drugs (2 cr hrs)
PHR2410 Drugstore Science (2 cr hrs)
PHR2510* Introduction to Pharmacy (2 cr hrs)
PHR2520* Patient Perspectives (2 cr hrs)
PHR2934 Wizarding World of Pharmaceutical Sciences (3 cr hrs)
PHR3400* Therapeutic Frontiers (2 cr hrs)
PHR3420* Gen Rx: America's Drug-Taking Culture (3 cr hrs)
PHR3500* Pharmacoethics: Dilemmas & Decision-Making (2 cr hrs)
PHR3520* Principles of Therapeutics (2 cr hrs)
PHR 3530 Drugs & Human Enhancement (3 cr hrs)
PHR 3540* Health Citizenship: Advocacy and Change-making (3 cr hrs)
PHR 3708 Vaccines: A Global History (3 cr hrs)
PHR4000* Molecules to Medicines I (5 cr hrs)
PHR4010* Molecules to Medicines II (5 cr hrs)
PHR4193 Individual Studies in Pharm Sciences (Var)
PHR4210 Prob Solving in Biomed Chemistry (2 cr hrs)
PHR4330 Basic Pharmacokinetics (2 cr hrs)
PHR4420* Molecular Pharmacology (2 cr hr)
PHR4430 GPCR Pharmacology (1 cr hr)
PHR4440* Pharm. of Neur. and Psych. Disorders (3 cr hrs)
PHR4470* Contemporary Pharmacology (1 cr hr)
PHR4600 Pharmaceutical Sciences Laboratory (2 cr hrs)
PHR4610 Experimental Techniques in Drug Discovery (3 cr hrs)
PHR4998 General Undergraduate Research (Var)
PHR5010 Fundamentals of Pharmacology (3 cr hrs)
PHR5402 Introduction to Pharmacoeconomics (3 cr hrs)
PHR5410* Understanding & Changing Vaccine Hesitancy Perspectives (3 cr hrs)
PHR5460* Contemporary Drug Addiction Literature (1 cr hr)
PHR5500 History of Pharmacy (3 cr hrs)
PHR5510* Basics of Pharmaconutrition (3 cr hrs)
PHR5520* Advanced Pharmaconutrition (2 cr hrs)
PHR5530* Med. App. of Radionuclides and Radiopharm. (2 cr hrs)

PHR5540* Intro to Clin. and Transl. Pharmacy Research (2 cr hrs)
PHR5550 Topics in International Pharmacy (2 cr hrs)
PHR5560 Success and Leadership in Pharmacy (1.5 cr hrs)
PHR5580 Professional Ethics (1.5 cr hrs)
PHR5590 Chem. Dependency & the Healthcare Prof (3 cr hrs)
PHR5700 Introduction to Personalized Therapeutics and Pharmacogenomics (3 cr Hrs)

Pharmaceutical Sciences minor program guidelines

Required for graduation: No

Credit hours required: A minimum of 12 cr hrs. 1000-level courses shall not be counted in the minor. At least 6 credit hours must be at the 3000 level or above.

Transfer and EM credit hours allowed: A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

Overlap with the GE: A student is permitted to overlap up to 6 credit hours between the GE and the minor.

Overlap with the major and additional minor(s):

The minor must be in a different subject than the major. The minor must contain a minimum of 12 hours distinct from the major and/or additional minor(s).

Grades required:

Minimum C- for a course to be listed on the minor
Minimum 2.00 cumulative point-hour ration required for the minor
Course work graded Pass/Non-Pass cannot count on the minor
No more than 3 credit hours of course work graded Satisfactory/Unsatisfactory may count toward the minor

X193 credits: No more than 3 credit hours

Minor approval: The minor must be approved by the academic unit. Please see the College of Pharmacy's undergraduate advisors for approval.

Filing the minor program form: The minor program must be filed at least by the time the graduation application is submitted to a college/school counselor.

Changing the minor: Once the minor program is filed in the college office, any changes must be approved by the College of Pharmacy. Please see an undergraduate advisor for approval.

College of Arts and Sciences
Curriculum and Assessment Services
154 Denney Hall, 164 Annie and John Glenn Ave
<http://artsandsciences.osu.edu>

Approved CAA 2-3-16
Updated 1-18-17 DH
Updated 2-15-17 DH
Updated 3-6-18 DH
Updated 4-4-18 DH
Updated 10-9-19 DH
Updated 1-16-20 DH