

PHARMACOLOGY (M.S.)

An admissions moratorium is currently in effect for this program.

Admission Requirements

Admission to the Master of Science with a major in Pharmacology and concentration in Applied Pharmacology and Environmental Xenobiotics program is contingent upon admission to the Graduate School (<http://bulletins.wayne.edu/graduate/general-information/admission/>). A bachelor's degree or equivalent is required, with a major in biological, chemical, physical, or computer science. An overall GPA of 3.0 is strongly preferred. Application requirements include transcripts from academic institutions attended, a statement of purpose, and three letters of recommendation. The Graduate Record Examination (GRE) is *not* required. International students must demonstrate proficiency in English as determined by satisfactory performance on the standardized TOEFL exam or other appropriate exams (this will be waived in the case of international students coming from countries offering their coursework in English).

Academic Scholarship

All course work must be completed in accordance with the regulations of the Graduate School (<http://bulletins.wayne.edu/graduate/general-information/academic-regulations/>) and the School of Medicine (<http://bulletins.wayne.edu/graduate/school-medicine/programs/>) governing graduate scholarship and degrees.

Program Requirements

Graduation requirements include the successful completion of 33-34 credits in the Applied Pharmacology and Environmental Xenobiotics program with a minimum overall grade point average of 3.00. Full-time students can readily complete all requirements for the program degree within 2 years. Some students (such as those currently employed) may choose to enroll on a part-time basis. In any case, all degree requirements must be completed within 6 years of commencing the program.

All incoming The Applied Pharmacology and Environmental Xenobiotics program students will be required to successfully complete online courses in Lab Biosafety, Communicating Research Findings, and Responsible Conduct of Research, as offered through the Collaborative Institutional Training Initiative (CITI) Program, followed by a Responsible Conduct course offered by the Graduate School. These are 0-credit courses.

Plan A and Plan B options require submission of a Plan of Work developed in consultation with the Program Director during the first year. Plan A requires subsequent completion of a thesis based on original research, under the direction of an Advisor and two additional committee members are chosen from among PHC faculty members with Graduate Faculty status. Plan B requires completion of an Essay based on a scholarly review of the relevant literature, under the direction of an Advisor and two additional departmental committee members with Graduate Faculty status. The thesis or essay Advisor will be selected during the Winter semester of year 1. Students' progress toward completion of their theses or essays will be monitored and certified by their committees twice-yearly. The Program Director will monitor academic progress in coursework relative to the Plan of Work.

Plan A Curriculum (34 credits)

Code	Title	Credits
Required courses		
PHC 7010	Pharmacology Lecture	4

PHC 7410	Principles of Toxicology	3
FPH 7015	Biostatistics I	3
PHC 7650	Advanced Topics in Pharmacology (1-2 cr. each; minimum 5 cr.)	5
PHC 8999	Master's Thesis Research and Direction	8

Electives

Select a minimum of 11 credits from the following		11
PHC 6500	Drugs and the Addictive Process	
PHC 7650	Advanced Topics in Pharmacology	
PHC 7700	Recent Developments in Pharmacology	
FPH 7020	Biostatistics II	
FPH 7240	Epidemiology	
FPH 7420	Principles of Environmental Health	
MGG 7010	Molecular Biology and Genetics	
MGG 7050	Bioinformatics: theory and practice	
MGG 7091	Scientific Communication	
PSC 6910	Pharmaceutical Waste: Environmental Impact and Management	
PSL 7010	Basic Graduate Physiology Lecture I	
UP 6700	Geographic Information Systems	

Total Credits 34

Plan B Curriculum (33 credits)

Code	Title	Credits
Required Courses		
PHC 7010	Pharmacology Lecture	4
PHC 7410	Principles of Toxicology	3
FPH 7015	Biostatistics I	3
PHC 7650	Advanced Topics in Pharmacology (1-2 cr. each; minimum 5 cr.)	5
Concentration Essay in Pharmacology		3
Electives		
Select a minimum of 15 credits from the following:		15
PHC 6500	Drugs and the Addictive Process	
PHC 7650	Advanced Topics in Pharmacology	
PHC 7700	Recent Developments in Pharmacology	
PHC 7890	Seminar	
FPH 7020	Biostatistics II	
FPH 7240	Epidemiology	
FPH 7420	Principles of Environmental Health	
MGG 7010	Molecular Biology and Genetics	
MGG 7050	Bioinformatics: theory and practice	
MGG 7091	Scientific Communication	
PSC 6910	Pharmaceutical Waste: Environmental Impact and Management	
PSL 7010	Basic Graduate Physiology Lecture I	
UP 6700	Geographic Information Systems	

Total Credits 33