

University of Pittsburgh School of Pharmacy MSPS Curriculum

Fall	Course No.	Units	Spring	Course No.	Units
MS Year 1					
Research Practicum I	PHARM 2041	1	Research Practicum II	PHARM 2042	2
Biochemical Pharmacology	PHARM 3053	4	Pharmaceutical Analysis	PHARM 2001	4
Stat Methods 1/Recitation	PHARM 3040	3	Foundations in Pharm Sci	PHARM 3071	4*
Scientific Writing	PHARM 3049	2	Journal Club		1
Electives/Var Cr Res Practicum PHARM 3042		0-5	Electives/Var Cr Res Practicum PHARM 3042		0-4*
	Credits	10-15		Credits	11-15
MS Year 2					
Research Practicum III	PHARM 2043	5	Research Practicum IV	PHARM 2044	4
Pharm Sci Seminar	PHARM 3024	1	MS Thesis	PHARM 2010	4
Journal Club		1	Pharm Sci Seminar – 20 min presentation	PHARM 3025	1
			Electives/Var Cr Res Practicum PHARM 3042		0-6
Electives/Var Cr Res Practicum PHARM 3042		3-5	Thesis Defense		
	Credits	10-15		Credits	9-15

- Good academic standing: ≥ 3.0 gpa and $\geq C+$ in all core courses
- 2 credits of journal clubs & 2 credits of seminar are required
- *In lieu of PHARM3071, students in the POPR track only may take PHARM3077 (1.5cr) PLUS 2.5-4 credits of electives

Research Practicum Competencies			
Research Practicum I: • Research integrity • Lab safety/data safety • Human subjects training • Bloodborne pathogens • Assist in experiments • Keep lab notebook • Assisted use of tools	Research Practicum II: • Develop project hypothesis/aims • Continue/complete review paper • Assisted design of experiments • Assist in experiments • Assisted use of tools • Keep lab notebook • Lab/research maintenance	Research Practicum III: • Form thesis committee • Approval of research project • Continue/complete review paper • Assisted & independent experiments • Assisted & independent use of tools • Keep lab notebook • Lab/research maintenance	Research Practicum IV: • Continue/complete review paper • Independent experiments • Independent use of tools • Assistance with new tools • Assistance with new experiments • Keep lab notebook • Lab/research maintenance

ELECTIVES:

- [PHARM 3032 - MEDICINAL CHEMISTRY](#)
- [PHARM 3036 - ADVANCES IN DRUG DELIVERY AND REGENERATIVE MEDICINE](#)
- [PHARM 3043 - TEACH ME TO TEACH YOU](#)
- [PHARM 3068 - COMPUTATIONAL SYSTEMS PHARMACOLOGY](#)
- [PHARM 3069 - PHARMACOMETRICS](#)
- [PHARM 3002 - ADVANCED PHARMACOKINETICS](#)
- [PHARM 3008 - ADVANCES IN DRUG DELIVERY AND TARGETING](#)
- [PHARM 3027 - TOPICS IN BIOPHARMACEUTICS AND PHARMACOKINETICS](#)
- [PHARM 5219 - DOSAGE FORM DESIGN AND DELIVERY](#)
- [PHARM 3067 - CLINICAL PHARMACY ENVIRONMENTS](#)
- [PHARM 5222 - FUNDAMENTALS OF IMMUNOLOGY](#)
- [PHARM 5328 - ADVANCED THERAPEUTICS: IMMUNOLOGY](#)
- [PHARM 5218 - PHARMACOKINETICS AND DRUG RESPONSE](#)
- [PHARM 5315 - ONCOLOGY/HEMATOLOGY](#)
- [PHARM 5316 - PULMONOLOGY/RHEUMATOLOGY](#)
- [PHARM 5318 - ENDOCRINOLOGY](#)
- [PHARM 5321 - CRITICAL CARE AND ADVANCED NEPHROLOGY](#)
- [PHARM 5223 - GASTROENTEROLOGY/NUTRITION](#)
- [PHARM 5325 - NEUROLOGY/PSYCHIATRY](#)
- [PHARM 5834 - PYTHON FOR DATA MANAGEMENT AND ANALYTICS](#)
- [PHARM 5910 - US HEALTHCARE SYSTEM](#)
- [PHARM 5916 - PREDICTIVE ANALYTICS IN PHARMACY AND KNOWLEDGE DISCOVERY FROM BIG DATA](#)
- [PHARM 3308 - DATA PRIVACY AND SECURITY](#)
- [PHARM 3310 - SECONDARY DATA SOURCES, METHODS AND TOOLS](#)
- [PHARM 3312 - COMMUNICATING DATA](#)
- [PHARM 3303 - TOPICS AND METHODS FOR SECONDARY DATABASE EVALUATIONS](#)
- [PHARM 3304 - RESEARCH METHODS FOR PHARMACEUTICAL PRACTICE AND POLICY](#)
- [PHARM 3306 - INTRODUCTION TO THE UNITED STATES HEALTHCARE SYSTEM AND PHARMACEUTICALS](#)