

MSIPS Sample Curriculum for students entering the Fall 2024 term

Available courses for the MSIPS program will vary depending on the year an applicant applies and is accepted into the program. The sample curricula below is intended to provide useful information to applicants regarding the courses that may be available during the chosen year of enrollment for each track in the program. Specific course selections for each student will be determined mutually by the advisor and the student following matriculation into the MSIPS program. A sample list of elective courses is listed below but does not represent a complete list of the many options available for students at the University of Michigan.

Pharmaceutical Sciences Track**

Fall Term 2024				Winter Term 2025				Spring/Summer Term 2025		
Course	Description	Credits	Prereq	Course	Description	Credits	Prereq	Course	Description	Credits
PS 700	Pharmacokinetics	2		PS 705	Advances in Drug Deliv Tech	2		INTPHARM 790	Capstone	8
PS 702	Biopharmaceutics	2		PS 717	Biopharm Engineering	3				8
PS 706	Biologic products	2		PS 760	Adv Pharmacokinetics & Biopharmaceutics	2	PS 700, Math 216 or equiv			
CPTS 820	Clin Trans in Pharmacokinetics	1		INTPHARM 750	Seminar	1				
INTPHARM 750	Seminar	1		MEDCHEM 660	RCRS	0.5				
MEDCHEM 660	RCRS	0.5			<i>Electives*</i>	5				
	<i>Electives*</i>	3				13.5				
		11.5								

Medicinal Chemistry Track**

Fall Term 2024				Winter Term 2025				Spring/Summer Term 2025		
Course	Description	Credits	Prereq	Course	Description	Credits	Prereq	Course	Description	Credits
Chem 540	Organic Principles	3		MC 535	Principles of Drug Design	3	MC532	INTPHARM 790	Capstone	8
MC 532	Bioorgan Princ of Med Chem	3		MC 660	RCRS	0.5				8
PS 702	Biopharmaceutics	2		PS 705	Advances in Drug Deliv Tech	2				
INTPHARM 750	Seminar	1		INTPHARM 750	Seminar	1				
					<i>College of Pharmacy Required Course</i>	3				
MC 660	RCRS	0.5			<i>Electives*</i>	4				
	<i>Electives*</i>	2				13.5				
		11.5								

Clinical Pharmacy Track**

Fall Term 2024				Winter Term 2025				Spring/Summer Term 2025		
Course	Description	Credits	Prereq	Course	Description	Credits	Prereq	Course	Description	Credits
BioStat 521	Applied Biostatistics	4		CPTS 822	Res and Trans in Pgenomic	3		INTPHARM 790	Capstone	8
CPTS 820	Clin Transl in Pharmacokinetics	1		P 647	Clin Trials for Trans. Sci	2				8
PS 700	Pharmacokinetics	2		MC 660	RCRS	0.5				
MC 660	RCRS	0.5		CPTS 830	Health Service Research	3				
INTPHARM 750	Seminar	1		INTPHARM 750	Seminar	1				
CPTS 832	Pharmacy Informatics Research	3			<i>Electives*</i>	2				
	<i>Electives*</i>	2				11.5				
		13.5								

Examples of Elective Courses*

U-M Elective Courses Offered Fall Semester				U-M Elective Courses Offered Winter Semester			
Course	Description	Credits	Prereq	Course	Description	Credits	Prereq
Biolchem 515	Intro to Biochem	4		Biolchem 515	Intro to Biochem	4	
Biophys 520	Theory & Methods Biophy	3		Biophys 521	Prin Biophysical Chem	3	
BioStat 521	Applied Biostatistics	4		BioStat 521	Applied Biostatistics	4	
CDB 530	Cell Biology	3		Biostat 522	Biostats Health-related	3	
Chem 520	Methods of Bio Chem	3	BioCh 415	Canbio 554	The Science of Cancer	4	
Chem 540	Organic Principles	3		CDB 530	Cell Biology	3	
Pcol 601	Quant. Princ of Pcol	3		Chem 520	Methods of Bio Chem	3	BioCh 415
Physiol 510	Systems and Integrative	4.5		Pcol 601	Quant. Princ of Pcol	3	
Stats 500	Statistical Learning: Regress	3		Physiol 510	Systems and Integrative	4.5	
				Stats 500	Statistical Learning: Regress	3	

* Electives may be chosen from College of Pharmacy courses or from other graduate level courses offered at the University of Michigan.

** Courses listed are suggested but not required for students interested in this track. Nine credits per semester is full time.

A minimum of 32 credits are required for degree.