

## Ph

## PHARMACEUTICAL SCIENCES CONCENTRATION

YEAR TERM		CHEMISTRY/BIOLOGY			GENERAL ELECTIVES	MATH/PHYSICS		GENERAL EDUCATION			TOTAL CREDITS
YEAR 1	FALL	<b>CHEM 110</b> 4 GENERAL CHEMISTRY I Co-Req: MATH 135 or higher	<b>BIOL 110</b> 4 GENERAL BIOLOGY I			<b>MATH 141**</b> 4 PRECALCULUS Pre-Req: Placement Exam or MATH 101		<b>FCWR 101/111</b> 3 FOUNDATIONS OF COLLEGE COMPOSITION Pre-Req: Requires Placement			15
	SPRING	<b>CHEM 150</b> 4 GENERAL CHEMISTRY II Pre-Req: CHEM 110				<b>MATH 170</b> 4 CALCULUS I Pre-Req: Placement Exam, MATH 141 or MATH 136		<b>FCWR 151/161</b> 3 FOUNDATIONS OF RESEARCH WRITING Pre-Req: FCWR 101/111	<b>DATA 101</b> 3 MAKING SENSE OF A DATA-ORIENTED SOCIETY		14
YEAR 2	FALL	<b>CHEM 210</b> 4 ORGANIC CHEMISTRY I Pre-Req: CHEM 150				<b>MATH 180</b> 4 CALCULUS II Pre-Req: MATH 170	<b>PHYS 170/175</b> 4/5 PHYSICS REQUIREMENT Co-Req: MATH 170	<b>GENERAL ELECTIVE</b> 3			15/16
	SPRING	<b>CHEM 250</b> 4 ORGANIC CHEMISTRY II Pre-Req: CHEM 210	<b>BIOL 210</b> 4 HUMAN GROSS ANATOMY Pre-Req: BIOL 150			<b>MATH 235</b> 3 APPLIED STATISTICS Pre-Req: MATH 170 --- OR --- <b>MATH 310</b> 3 LINEAR ALGEBRA Pre-Req: MATH 180	<b>PHYS 180/185</b> 4/5 PHYSICS REQUIREMENT Pre-Req: PHYS 170 or PHYS 175 Co-Req: MATH 180				15/16
YEAR 3	FALL	<b>CHEM 310</b> 4 QUANTITATIVE ANALYSIS Pre-Req: CHEM 150	<b>BIOL 340</b> 4 BIOCHEMISTRY Pre-Req: BIOL 150 and CHEM 210	<b>BIOL 310</b> 4 HUMAN PHYSIOLOGY Pre-Req: BIOL 210				<b>FCWR 304 or 302</b> 3 COMMUNICATION FOR TECH. PROFESSIONS OR HEALTHCARE CAREERS Pre-Req: FCWR 151/161	<b>ICXX 3XX*</b> 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161		18
	SPRING	<b>CHEM 350</b> 3 INSTRUMENTAL ANALYSIS Pre-Req: CHEM 310	<b>CHEM 395</b> 3 INTRODUCTION TO RESEARCH DESIGN Pre-Req: Any 300 level CHEM course	<b>BIOL 456</b> 3 PHARMACOLOGY Pre-Req: BIOL 310 or 311 and CHEM 215 or BIOL 340	<b>GENERAL ELECTIVE</b> 3			<b>ICXX 3XX*</b> 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161			15
YEAR 4	FALL	<b>CHEM 410</b> 4 PHYSICAL CHEMISTRY I Pre-Req: CHEM 310 and Co-Req: MATH 170	<b>CHEM 48X, 493 or 494</b> 3/4 RESEARCH PROJECT LAB or INDEPENDENT RESEARCH III or IV	<b>CHEM 420</b> 3 PHARMACEUTICAL CHEMISTRY Pre-Req: BIOL 340	<b>GENERAL ELECTIVE</b> 3			<b>ICXX 3XX*</b> 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161			16/17
	SPRING	<b>CHEM 450</b> 4 PHYSICAL CHEMISTRY II Pre-Req: CHEM 410 and Co-Req: MATH 180	<b>CHEM 470</b> 3 INORGANIC CHEMISTRY Pre-Req: CHEM 310	<b>CHEM 440</b> 3 DRUG DISCOVERY Pre-Req: CHEM 420 or BIOL 456	<b>GENERAL ELECTIVE</b> 3			<b>ICXX 3XX*</b> 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS) Pre-Req: FCWR 151/161			16
<b>CREDITS</b>											<b>124-126</b>

\*Of the four required ICXX seminar courses (ICBS, ICLT, ICPH, ICSS), at least three must be in different subject areas.

Course names, numbers and/or pre-requisites are subject to change.

\*\* Some students must take both MATH 135 and MATH 136. Both courses are the equivalent of MATH 141.

For students that are planning to apply to medical school, you must take BIOL 150 (General Biology II) as one of your science electives as well as PSYC 101 and SOCI 101 for General Electives.