

## Pharmacology & Toxicology Major & Data Science Certificate Planning Guide

Below is a sample 4-year plan that shows how a student might navigate both the Pharmacology & Toxicology major and Data Science certificate. This plan is provided as a tool for students to understand the potential course load between two programs and areas of overlap and non-overlap. Please note that this is a flexible plan and students are not required to follow this plan exactly. Students are strongly encouraged to review the full curriculum for both programs on the Guide and contact relevant advisors for information on course selection.

[Guide link to the Pharmacology & Toxicology major](#)

[Guide link to the Data Science certificate](#)

### 4 Year Plan

	Fall		Spring	
	PHARMTOX	DS	PHARMTOX	DS
<b>Year 1</b>	CHEM 103 (4), MATH 221 (5)	COMP SCI 220 (4)	CHEM 104 (5)	
Shared/Gen-Ed	electives and gen-ed courses		STAT 240 (4), electives and gen-ed courses	
<b>Year 2</b>	BIO/BOT/ZOO 151 (5), CHEM 343 (3)	DS Elective (3)	BIO/BOT/ZOO 152 (5), CHEM 344 (2), CHEM 345 (3)	
Shared/Gen-Ed	electives and gen-ed courses		electives and gen-ed courses	
<b>Year 3</b>	BIOCHEM 507 (3), ANAT&PHY 335 (5), PHM SCI 558 (2), Research (699) credits (2-3)	L I S 461 (3-4)	BIOCHEM 508 (3), PATH 404 (3), PHM SCI 679 (1), PHYSICS 103 (4), Electives in the Major or Additional Research credits (2-3)	
Shared/Gen-Ed	electives and gen-ed courses		electives and gen-ed courses	
<b>Year 4</b>	PHM SCI 521 (3), 625 (3), 623 (1), PHYSICS 104 (4), Electives in the Major or Additional Research credits (2-3)		PHM SCI 522 (3), 626 (3), 679 (1), GENETICS 466 (3),	DS Elective (3)
Shared/Gen-Ed	electives and gen-ed courses		electives and gen-ed courses	

**STAT 240 is an overlapping course between the DS certificate and PharmTox major. There may be additional courses that count such as BIOCHEM 570 or Biocore. Please consult your advisor for more information.**

Below is a 5-semester and 3-semester plan for students who may have less than two years to complete the Data Science certificate.

### 5 Semester Plan

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5
COMP SCI 220 (4)	<b>STAT 240 (4)</b>	L I S 461 (3-4)	DS Elective (3)	DS Elective (3)

### 3 Semester Plan

Semester 1	Semester 2	Semester 3
COMP SCI 220 (4), L I S 461 (3-4)	<b>STAT 240 (4),</b> DS Elective (3)	DS Elective (3)