

Bachelor of Science in Pharmaceutical Sciences

Degree Requirements: Fall 2024

NAME

ID#

Date

GENERAL EDUCATION REQUIREMENTS

Introduction to General Education

☐ UNIV 101 1

English Composition*

☐ ENGL 101 or 107 3

☐ ENGL 102 or 108 3

OR

☐ ENGL 109H 3

Second Language

☐ 2nd semester proficiency.....

Mathematics

☐ MATH 113, 119, 122B, or 125 3

Exploring Perspectives (4 courses)

☐ Artist..... 3

☐ Humanist 3

☐ Social Scientist 3

☐ Natural Scientistfulfilled with CHEM 151..... 3

Building Connections (3 courses)

☐ Course #1..... 3

☐ Course #2 3

☐ Course #3 3

General Education Portfolio

☐ UNIV 301 1

☐ Minimum 32 total General Education Units Required

BSPS FOUNDATION SCIENCE COURSES

Chemistry (General & Organic, with labs)

☐ CHEM 151 OR (161+163) OR (141+143)..... 4

☐ CHEM 152 OR (162+164) OR (142+144)..... 4

☐ CHEM (241A OR 242A) & 243A 3 1

☐ CHEM (241B OR 242B) & 243B..... 3 1

Introductory Biology, with lab

☐ MCB 181R & 181L 3 1

Microbiology, with lab

☐ MIC 205A & 205L 3 1

Physiology

☐ PSIO 380 4

OR

☐ PSIO 201 4

☐ PSIO 202 4

PSIO 201 + 202 option is required for PharmD admission

Physics, with lab

☐ PHYS 102 & 181 3 1

Biochemistry

☐ BIOC 384, 385, or 462A 3

PHARM SCI MAJOR Requirements

CORE REQUIREMENTS – Complete all 6

☐ PCOL 200: Drugs & Humanity..... 3

☐ PCOL 305: Scientific Writing for Health Sciences..... 3

☐ PCOL 310: Drug Approval: The 3 Billion Dollar Bet... 2

☐ PCOL 350: ADME: How the Body Changes Drugs..... 3

☐ PCOL 406: Comprehensive Human Pharmacology..... 5

☐ PCOL 410: Medicinal Chemistry..... 4

SUB-CORE REQUIREMENTS – Choose 2

☐ PCOL 355: Drug Delivery Systems..... 3

☐ PCOL 390: Biomarkers: Analysis of Drug Effect/Tox.. 3

☐ PCOL 473: Pharmacogenomics..... 3

☐ PCOL 488: Drug Hunting for Beginners..... 3

MAJOR ELECTIVES – Choose at least 3

☐ PCOL 300: Pharmacology of Cosmetics..... 3

☐ PCOL 313: Therapeutics of Longevity & Ageing..... 3

☐ PCOL 320: Toxicology..... 3

☐ PCOL 405: Pharmaceutical Science Techniques..... 3

☐ PCOL 418: Science of Natural Products in Medicine. 3

☐ PCOL 429: Neuropsychopharmacology..... 3

☐ PCOL 434: Pharmacology of Sex..... 3

☐ PCOL 436: Cardiovascular Pharmacology..... 3

☐ PCOL 440: Rigor & Reproducibility..... 2

☐ PCOL 445: OTC Drug Information..... 3

☐ PCOL 465: Infectious Disease Pharmacology..... 3

☐ PCOL 467: Pharmacology of Anti-Cancer Drugs..... 3

Extra "Sub-Core" courses may count as major electives

☐ 3

☐ 3

UNIVERSITY REQUIREMENTS:

2.00+ cumulative GPA _____ 2.00+ major GPA _____

120 total units _____ 42 upper division units _____

All students need some elective credit to reach unit requirements

MCWA complete _____ 30+ total UA units _____

ADDITIONAL REQUIREMENTS FOR MEDICAL AND PHARMACY SCHOOL

Most schools require the following courses, but individual schools may have even more requirements. Check each school of interest for details.

Pre-Med students should add the following courses to their BSPS plan:

PHYS 103&182 _____ PSY 150A1 (as Soc Sci gen ed) _____

Stats (MATH 263/BIOS 376) _____ Biology II (ECOL 182R+182L) _____

UA Pre-PharmD students must add the following courses to the BSPS plan:

Statistics _____ PSIO 201 + 202 in lieu of PSIO 380

Bachelor of Science in Pharmaceutical Sciences

Degree Requirement Term: Fall 2024

This is a SAMPLE PLAN. Your plan may look different, depending upon your placement scores, transfer credit, and career goals. Work with your advisor to develop an individualized course plan.

SEMESTER 1

MATH 113: <i>Elements of Calculus</i>	3
CHEM 151: <i>General Chemistry I</i>	4
ENGL 101: <i>English Composition I</i>	3
Second Language – 1 st -semester level	4
UNIV 101: <i>Intro to General Education</i>	1
PCOL 196D: <i>Intro to Pharmaceutical Sciences</i> ~	1
	16

SEMESTER 2

CHEM 152: <i>General Chemistry II</i>	4
ENGL 102: <i>English Composition II</i>	3
MCB 181R +181L: <i>Introductory Biology I + lab</i>	4
Second Language – 2 nd -semester level	4
	15

SEMESTER 3

CHEM 241A+243A: <i>Organic Chemistry I + lab</i>	4
PSIO 201: <i>Human Anatomy & Physiology I</i>	4
PCOL 200: <i>Drugs and Humanity</i>	3
General Education*	3
	14

SEMESTER 4

CHEM 241B+243B: <i>Organic Chemistry II + lab</i>	4
PSIO 202: <i>Human Anatomy & Physiology II</i>	4
PCOL Major Elective	3
General Education *	3
General Education *	3
	17

SEMESTER 5

MIC 205A + 205L: <i>General Microbiology + lab</i>	4
BIOC 384: <i>Foundations in Biochemistry</i>	3
PCOL 406: <i>Comprehensive Human Pharmacology</i>	5
PCOL 310: <i>Drug Approval: The 3 Billion Dollar Bet</i>	2
	14

SEMESTER 6

PHYS 102+181: <i>Introductory Physics I + lab</i>	4
PCOL 350: <i>ADME: How the Body Changes Drugs</i>	3
PCOL 410: <i>Integrated Medicinal Chemistry</i>	4
General Education*	3
	14

SEMESTER 7

PCOL 305: <i>Scientific Writing for Health Sciences</i>	3
PCOL Sub-Core Course	3
PCOL Major Elective	3
General Education – Upper Division	3
Elective Credit or Statistics**	3
	15

SEMESTER 8

PCOL Sub-Core Course	3
PCOL Major Elective	3
General Education – Upper-Division *	3
UNIV 301: <i>General Education Portfolio</i>	1
Elective Credit**	5
	15

Total Units Required: 120 (42 upper-division)

****ADDITIONAL COURSES MAY BE REQUIRED FOR ADMISSION TO PROFESSIONAL PROGRAMS OR TO PREPARE FOR CERTAIN CAREER PATHS, including Pharmacy, Medicine, and other health professions.**

- **PRE-PHARMACY:** Most PharmD programs require statistics. Many also require general biology II, economics, and/or public speaking. Check your programs of interest for requirements.
- **PRE-MED:** Many medical schools require statistics, general biology II, and physics II. Other schools may require additional courses; check with your programs of interest, and refer to these [Pre-Med Course Recommendations](#).
- **OTHER HEALTH PROFESSIONS:** Review these [Pre-Health Course Recommendations](#) for dental, PT, PA, and other health profession programs.
- **RESEARCH CAREERS:** Pursue undergraduate research experience to prepare for research careers. You can earn course credit for doing research.

~ PCOL 196D is recommended for all incoming first-year students, but it is not a required course.

* General education requirements include the following courses:

- UNIV 101 (Intro to General Education) and UNIV 301 (General Education Portfolio)
- FOUR *Exploring Perspectives* Gen Ed courses (Social Scientist, Humanist, Artist, and Scientist) The Scientist requirement is covered by CHEM 151.
- THREE *Building Connections* Gen Ed courses