

Bachelor of Science in Pharmaceutical Sciences

Degree Requirements: Catalog Year 2021-2022

Sample Four-Year Plan: Version 2A

Recommended for students with math placement of MATH 113 or higher, **Pre-Med Track**

| SEMESTER 1 | | SEMESTER 2 | |
|---|-----------|--|-----------|
| MATH 113: <i>Elements of Calculus*</i> | 3 | CHEM 152: <i>General Chemistry II*</i> | 4 |
| CHEM 151: <i>General Chemistry*</i> | 4 | ENGL 102: <i>English Composition II*</i> | 3 |
| ENGL 101: <i>English Composition I</i> | 3 | Second Language – 2 nd -semester level | 4 |
| Second Language – 1 st -semester level | 4 | MCB 181R +181L: <i>Introductory Biology I + lab*</i> | 4 |
| PCOL 196D: <i>Intro to Pharmaceutical Sciences</i> | 1 | | |
| | 15 | | 15 |
| SEMESTER 3 | | SEMESTER 4 | |
| CHEM 241A+243A: <i>Organic Chemistry I + lab*</i> | 4 | CHEM 241B+243B: <i>Organic Chemistry II + lab*</i> | 4 |
| PSIO 201: <i>Human Anatomy & Physiology I*</i> | 4 | PSIO 202: <i>Human Anatomy & Physiology II</i> | 4 |
| PCOL 310: <i>Drug Approval - The 3 Billion Dollar Bet</i> | 2 | PCOL 440: <i>Rigor & Reproducibility</i> | 2 |
| MATH 263: <i>Intro to Statistics and Biostatistics***</i> | 3 | PSY 150A1: <i>Structure of Mind & Behavior***</i> | 3 |
| Tier I General Education Course** | 3 | Tier I General Education course** | 3 |
| | 16 | | 16 |
| SEMESTER 5 | | SEMESTER 6 | |
| PHYS 102+181: <i>Introductory Physics I + lab</i> | 4 | PHYS 103+182: <i>Introductory Physics II + lab***</i> | 4 |
| BIOC 384: <i>Foundations in Biochemistry</i> | 3 | PCOL 350: <i>ADME: How the Body Changes Drugs</i> | 3 |
| MIC 205A+205L: <i>General Microbiology + lab</i> | 4 | PCOL 410: <i>Integrated Medicinal Chemistry</i> | 5 |
| PCOL 406: <i>Comprehensive Human Pharmacology</i> | 5 | Tier I General Education Course** | 3 |
| | 16 | | 15 |
| SEMESTER 7 | | SEMESTER 8 | |
| PCOL 355: <i>Drug Delivery Systems</i> | 3 | PHCL 460: <i>Designing Drugs: From Chemistry to Cure</i> | 3 |
| PCOL 390: <i>Biomarkers: Analysis of Drug Effect/Toxicity</i> | 3 | PCOL 473: <i>Pharmacogenomics</i> | 3 |
| PCOL 305: <i>Scientific Writing for Health Sciences</i> | 3 | Upper-Division Tier II General Education Course** | 3 |
| ECOL 182R+182L: <i>Introductory Biology II + lab***</i> | 4 | Tier II General Education Course** | 3 |
| Upper-Division Tier II General Education Course** | 3 | Upper-Division MCB course *** | 3 |
| | 16 | | 15 |

Total Units Required: 120 (42 upper-division)

- This is a sample plan. Your placement scores, transfer and exam credit, and other personal factors may impact your course sequencing. Official degree requirements can be found in the UA Academic Catalog.

* Certain science, math, and English courses must be completed with a minimum C average in order to gain Advanced Standing in the Pharmaceutical Sciences major. Other requirements will apply. Advanced Standing is required in order to access PCOL and PHCL courses in the 6th through 8th semester.

** Standard general education requirements include the following:

-Tier I: Two courses in Traditions & Cultures (160) and two courses in Individuals & Societies (150)

-Tier II: Three units in Arts, one course in Humanities, and one course in Individuals & Societies

-Diversity Emphasis: One of your Tier I or II courses must have a diversity emphasis

-Honors students have the option of taking one tier I and two tier II courses in the Individuals & Societies and Traditions & Cultures/Humanities categories. The same number of courses apply for honors and non-honors students.

*** Most med schools require psychology, biostatistics, 2 semesters of physiology + lab, 2 semesters of physics + lab, and introductory biology II. UA -Tucson College of Medicine med school requires an upper-division MCB course. Individual med schools may have other unique admission requirements; check your schools of interest and incorporate any additional course requirements into your plan.

updated 2/12/2021