THE UNIVERSITY OF ARIZONA College of Pharmacy

Bachelor of Science in Pharmaceutical Sciences

Degree Requirements: Catalog Year 2018-2019

NAME _____ ID#_____ Date_____

GENERAL EDUCATION REQUIREMENTS

English Composition*

ENGL 101 or 107..... 3 _____

ENGL 102 or 108..... 3 _____

OR

ENGL 109H ..... 3_____

Second Language

2nd semester proficiency**..... _____

Mathematics

Requirement satisfied by BSPS foundation courses

Individuals & Societies (3 courses)***

Tier One (150A, B or C) ..... 3 _____

Tier One (150A, B or C) ..... 3 _____

Tier Two Individuals & Societies ..... 3 _____

Traditions & Cultures/Humanities (3 courses)***

Tier One (160A, B, C or D) ..... 3 _____

Tier One (160A, B, D or D) ..... 3 _____

Tier Two Humanities..... 3 _____

Tier Two Art (3 units total)

_____ 3 _____

Diversity Emphasis Course

One course required. May be double-dipped with approved Tier I or II courses _____ _____

Natural Sciences

Requirement satisfied by BSPS major coursework.

BSPS FOUNDATION 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 & 243A ..... 3 _____ 1 _____

CHEM 241B & 243B..... 3 _____ 1 _____

Introductory Biology, with labs*

MCB 181R & 181L ..... 3_____ 1 _____

ECOL 182R & 182L ..... 3 _____ 1 _____

Microbiology, with lab

MIC 205A & 205L ..... 3 _____ 1 _____

Physics, with lab

PHYS 102 & 181 ..... 3 _____ 1 _____

Physiology

PSIO 380 ..... 4 _____

PSIO 201 + 202 (required for PharmD admission) also fulfills this requirement

Biochemistry

BIOC 384 ..... 3 _____

BIOC 385 or 462B can also fulfill this requirement

Mathematics*

MATH 113: Elements of Calculus ..... 3 _____

MATH 122A+B, 125, or 129 may also fulfill this requirement

PHARMACEUTICAL SCIENCES CORE

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 355: Drug Delivery Systems..... 3 _____

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

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

PCOL 410: Integrated Medicinal Chemistry..... 5 _____

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

PCOL 473: Pharmacogenomics..... 4_____

PHCL 460: Designing Drugs: From Chemistry to Cure..3 _____

UNIVERSITY REQUIREMENTS:

2.00+ cumulative GPA ____ 2.00+ major GPA ___

120 total units ____ 42 upper division units ____

Required courses for the BSPS do not add up to 120/42 units. All students need some upper division and general electives.

MCWA complete ___ Final 18 of 30 units complete ___

30+ total UA units ___ 18+ PCOL units at UA ___

ADDITIONAL REQUIREMENTS FOR MEDICAL AND PHARMACY SCHOOL

Most medical and pharmacy schools require the following additional courses, but individual schools may have additional 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 a Tier I INDV _____

Statistics (MATH 263 recommended) _____

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

Statistics _____ PSIO 201 + 202 in lieu of PSIO 380 _____

*ENGL, MATH, CHEM, MCB, and ECOL courses must be completed with average grades of C or higher prior to advancing from Pre-Pharmaceutical Sciences to Pharmaceutical Sciences. Other admission requirements apply.

**Language proficiency may be fulfilled by successfully completing a course at the 2nd semester level, or by placing into 3rd semester language on a PROCTORED placement exam.

***Honors students may choose to take two Tier II INDV and one Tier I INDV, and/or two Tier II HUMS + one Tier I TRAD in lieu of the options outlined above. The same number of courses are required for honors and non-honors students, but honors students may place more emphasis on Tier II courses.

updated 1/24/19

THE UNIVERSITY OF ARIZONA
College of Pharmacy

Bachelor of Science in Pharmaceutical Sciences

Degree Requirements: Catalog Year 2018-2019

Sample Four-Year Plan: Version 1A

Recommended for students with math placement of MATH 113 or higher

SEMESTER 1	
MATH 113: *Elements of Calculus*	3
CHEM 151: *General Chemistry*	4
ENGL 101: *English Composition I*	3
Second Language – 1st-semester level	4
PCOL 196D: *Intro to Pharmaceutical Sciences*~	1
	15

SEMESTER 2	
CHEM 152: *General Chemistry II*	4
ENGL 102: *English Composition II*	3
Second Language – 2nd-semester level	4
Tier I General Education Course**	3
Tier I General Education Course**	3
	17

SEMESTER 3	
CHEM 241A+243A: *Organic Chemistry I + lab*	4
MCB 181R +181L: *Introductory Biology I + lab*	4
PCOL 305: *Scientific Writing for Health Sciences*	3
Tier I General Education Course**	3
	14

SEMESTER 4	
CHEM 241B+243B: *Organic Chemistry II + lab*	4
PSIO 380: *Fundamentals of Human Physiology*	4
PCOL 310: *Drug Approval – The 3 Billion Dollar Bet*	2
Tier I general Education Course**	3
Tier II General Education Course**	3
	16

SEMESTER 5	
MIC 205A + 205L: General Microbiology + lab	4
BIOC 384: *Foundations in Biochemistry*	3
PCOL 440: *Rigor & Reproducibility*	2
PCOL 406: *Comprehensive Human Pharmacology*	5
	14

SEMESTER 6	
ECOL 182R + 182L: *Introductory Biology II + lab*	4
PCOL 350: *ADME: How the Body Changes Drugs*	3
PCOL 410: *Integrated Medicinal Chemistry*	5
Tier II General Education Course**	3
	15

SEMESTER 7	
PCOL 355: *Drug Delivery Systems*	3
PCOL 390: *Biomarkers: Analysis of Drug Effect/Toxicity*	3
PHYS 102 + 181*: Introductory Physics I + lab*	4
Tier II General Education Course**	3
Elective, Research, or Thesis	3
	16

SEMESTER 8	
PHCL 460: *Designing Drugs: From Chemistry to Cure*	3
PCOL 473: *Pharmacogenomics*	4
Elective, Research, or Thesis	3
Upper-Division Elective	3
	13

Total Units Required: 120 (42 upper-division)

Notes:

- This is a sample plan. Your placement scores, transfer and exam credit, and other personal factors may impact your course sequencing. Other sample plans are available for students with varying math placements, and for pre-med and pre-PharmD students. (Additional courses are required for admission to those professional programs.) Official degree requirements can be found in the UA Academic Catalog.

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

* Certain science, math, and English courses must be completed with grades of C or higher prior to advancing from the Pre-Pharmaceutical Sciences to the Pharmaceutical Sciences Major. Other admission requirements, including 2.0 UA cumulative and major GPA, will apply. Major admission 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 total number of courses apply for honors and non-honors students.

Updated 11/19/18

THE UNIVERSITY OF ARIZONA
College of Pharmacy

Bachelor of Science in Pharmaceutical Sciences

Degree Requirements: Catalog Year 2018-2019

Sample Four-Year Plan: Version 2A

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

SEMESTER 1	
MATH 113: *Elements of Calculus*	3
CHEM 151: *General Chemistry*	4
ENGL 101: *English Composition I*	3
Second Language – 1st-semester level	4
PCOL 196D: *Intro to Pharmaceutical Sciences*	1
	15

SEMESTER 2	
CHEM 152: *General Chemistry II*	4
ENGL 102: *English Composition II*	3
Second Language – 2nd-semester level	4
PSY 150A1 – *Structure of Mind and Behavior****	3
Tier I General Education Course**	3
	17

SEMESTER 3	
CHEM 241A+243A: *Organic Chemistry I + lab*	4
MCB 181R +181L: *Introductory Biology I + lab*	4
PCOL 305: *Scientific Writing: Manuscripts & Proposals*	3
MATH 263: *Intro to Statistics and Biostatistics****	3
	14

SEMESTER 4	
CHEM 241B+243B: *Organic Chemistry II + lab*	4
MIC 205A+205L: *General Microbiology + lab*	4
PCOL 310: *Drug Approval - The 3 Billion Dollar Bet*	2
PSIO 380: *Fundamentals of Human Physiology*	4
	14

SEMESTER 5	
PHYS 102+181: *Introductory Physics I + lab*	4
BIOC 384: *Foundations in Biochemistry*	3
PCOL 355: *Drug Delivery Systems*	3
PCOL 406: *Comprehensive Human Pharmacology*	5
	15

SEMESTER 6	
PHYS 103+182: *Introductory Physics II + lab****	4
PCOL 350: *ADME: How the Body Changes Drugs*	3
PCOL 410: *Integrated Medicinal Chemistry*	5
ECOL 182R+182L: *Introductory Biology II + lab*	4
	16

SEMESTER 7	
PCOL 440: *Rigor & Reproducibility*	2
PCOL 390: *Biomarkers: Analysis of Drug Effect/Toxicity*	3
Tier I General Education Course**	3
Tier I General Education Course**	3
Tier II General Education Course**	3
	14

SEMESTER 8	
PHCL 460: *Designing Drugs: From Chemistry to Cure*	3
PCOL 473: *Pharmacogenomics*	4
Tier II General Education Course**	3
Tier II General Education Course**	3
Upper-Division Elective	2
	13

Total Units Required: 120 (42 upper-division)

Notes:

- 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 grades of C or higher prior to advancing from the Pre-Pharmaceutical Sciences to Pharmaceutical Sciences Major. Other admission requirements, including 2.0 UA cumulative GPA, will apply. Major admission 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 PSY 150A1, biostatistics, and two semesters of physics + lab. Pre-med students should take these courses, even though they are not specifically required for the PharmSci major. Individual med schools have other unique admission requirements; check your schools of interest and incorporate any additional course requirements into your plan.

updated 11/19/18

THE UNIVERSITY OF ARIZONA College of Pharmacy

Bachelor of Science in Pharmaceutical Sciences

Degree Requirements: Catalog Year 2018-2019

Sample Four-Year Plan: Version 3A

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

SEMESTER 1	
MATH 113: *Elements of Calculus*	3
CHEM 151: *General Chemistry*	4
ENGL 101: *English Composition I*	3
Second Language – 1st-semester level	4
PCOL 196D: *Intro to Pharmaceutical Sciences*	1
	15

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

SEMESTER 3	
CHEM 241A+243A: *Organic Chemistry I + lab*	4
MIC 205A+205L: *General Microbiology + lab*	4
PCOL 305: *Scientific Writing: Manuscripts & Proposals*	3
Statistics (MATH 163 or 263, or PSY 230, or CPH 376)***	3
	14

SEMESTER 4	
CHEM 241B+243B: *Organic Chemistry II + lab*	4
PSIO 201: Human Anatomy & Physiology I***	4
PCOL 310: *Drug Approval - The 3 Billion Dollar Bet*	2
Tier I General Education Course**	3
ECON 200: *Basic Economic Issues (Tier II gen ed)****	3
	16

SEMESTER 5	
PSIO 202: *Human Anatomy & Physiology II****	4
BIOC 384: *Foundations in Biochemistry*	3
PCOL 355: *Drug Delivery Systems*	3
PCOL 406: *Comprehensive Human Pharmacology*	5
	15

SEMESTER 6	
ECOL 182R+182L: *Introductory Biology II + lab*	4
PCOL 350: *ADME: How the Body Changes Drugs*	3
PCOL 410: *Integrated Medicinal Chemistry*	5
Tier I General Education Course**	3
	15

SEMESTER 7	
PCOL 440: *Rigor & Reproducibility*	2
PCOL 390: *Biomarkers: Analysis of Drug Effect/Toxicity*	3
PHYS 102+181: *Introductory Physics I + lab*	4
Tier I General Education Course**	3
Tier I General Education Course**	3
	15

SEMESTER 8	
PHCL 460: *Designing Drugs: From Chemistry to Cure*	3
PCOL 473: *Pharmacogenomics*	4
Upper-Division Tier II General Education Course**	3
Upper-Division Tier II General Education Course**	3
elective	2
	15

Total Units Required: 120 (42 upper-division)

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-Diversity Emphasis: One of your Tier I or II courses must have an approved 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.

***Pre-PharmD students should complete ECON 200, statistics, and two semesters of physiology + lab (in lieu of the one-semester PSIO 380 course). These specific courses are not required for the BSPS major, but are required for admission to UA's PharmD program. Other PharmD schools may have additional requirements.

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