Bachelor of Science/Doctor of Pharmacy Major: Pharmaceutical Sciences/Pharm.D.

2019-2020 Sample 4-Year Plan

Total Degree Requirements: 218 credits – BS 138/PharmD 80	Total	Degree	<b>Requirements:</b>	218 credits –	BS	138/PharmD 80
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Student	Student ID#	Student Phone #
Advisor	Minimum GPA	Minor/Career Interest(s)

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the <a href="Undergraduate Catalog">Undergraduate Catalog</a>.

# First Year

## Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 151/L	General Biology I and Lab		4		
CHEM 112/L	General Chemistry I and Lab		4		
PHA 119	Introduction to the Pharmacy Profession		1	F	
SGR #4	Arts and Humanities /Diversity		3		
SPCM 101	Fundamentals of Speech (SGR #2)		3		
		Total Credit Hours	15		

**Spring** 

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CHEM 114/L	General Chemistry II and Lab (SGR #6)	p. CHEM 112, MATH 114 or higher	4		
ENGL 101	Composition I (SGR #1)	p. ENGL 032, 033, or placement	3		
MATH 121/L	Survey of Calculus and Lab (SGR #5)	p. MATH 114 or MATH 115 or placement	5		
SGR #3	Social Sciences/Diversity		3		
SGR #4	Arts and Humanities /Diversity		3		
		Total Credit Hours	18		

## **Second Year**

## Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 221/L	Anatomy and Lab		4		
CHEM 326/L	Organic Chemistry I and Lab	p. CHEM 114/L	4		
ECON 201	Principles of Microeconomics		3		
ENGL 201	Composition II (SGR #1)	p. ENGL 101	3		
GEN ELEC	General Elective		3		
		Total Credit Hours	17		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 325/L	Physiology and Lab	p. BIOL 151/L, BIOL 221/L and CHEM	4		
		112/L			
CHEM 328/L	Organic Chemistry II and Lab	p. CHEM 326/L	4		
STAT 281	Introduction to Statistics	p. MATH 121/L	3		
MICR 231/L	General Microbiology and Lab	p. CHEM 112	4		
PHA 219	Fundamentals of Health Care Practice I		1	S	
		Total Credit Hours	16		



P1 Year-BS Phar	maceutical Sciences				
<u>Fall</u>					
Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
PHA 313	Pharmacy Calculations	Pharmacy Major	1	F	
PHA 323	Pharmaceutical Biochemistry	Pharmacy Major	4	F	
PHA 331	Pharmaceutics I	Pharmacy Major	4	F	
PHA 340	Medicinal Chemistry I	Pharmacy Major	3	F	
PHA 352	Pathophysiology, Pharmacology and Toxicology I	Pharmacy Major	3	F	
PHA 363L	Pharmacy Skills Laboratory I	Pharmacy Major	1	F	
PHA 367	Pharmacy Practice I: Intro to Pharmacy Practice	Pharmacy Major	1	F	
		Total Credit Hours	17		
Spring	. L			<u> </u>	
Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
PHA 324	Biomedical Sciences I	Pharmacy Major	4	S	
PHA 326L	Integrated Pharmacy Laboratory I	Pharmacy Major	1	S	
PHA 332	Pharmaceutics II	Pharmacy Major	2	S	
PHA 341	Medicinal Chemistry II	Pharmacy Major	3	S	
PHA 342	Self Care Pharmacotherapeutics I	Pharmacy Major	1	S	
PHA 353	Pathophysiology, Pharmacology and Toxicology II	Pharmacy Major	3	S	
PHA 364L	Pharmacy Skills Laboratory II	Pharmacy Major	2	S	
PHA 368	Pharmacy Practice II: Drug Information and	Pharmacy Major	2	S	
	Communication				
	Communication				
	Communication	Total Credit Hours	18		
Summer			18		
Summer Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Summer		Prerequisites/Comments P2 Year Standing	Credits 3	Semester Su	Grade
Summer Prefix + Number	Course Title	Prerequisites/Comments	Credits	1	Grade
Summer Prefix + Number PHA 410	Course Title IPPE I	Prerequisites/Comments P2 Year Standing	Credits 3	1	Grade
Summer Prefix + Number PHA 410  P2 Year- BS Phan	Course Title	Prerequisites/Comments P2 Year Standing	Credits 3	1	Grade
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall	Course Title IPPE I  rmaceutical Sciences	Prerequisites/Comments P2 Year Standing Total Credit Hours	Credits 3	Su	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number	Course Title IPPE I  rmaceutical Sciences  Course Title	Prerequisites/Comments P2 Year Standing Total Credit Hours  Prerequisites/Comments	Credits 3 3 Credits	Su	Grade Grade
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415	Course Title IPPE I  The course Title  Course Title  Biopharmaceutics and Pharmacokinetics	Prerequisites/Comments P2 Year Standing Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits 3 3 Credits 4	Su Semester F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425	Course Title IPPE I  Course Title Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II	Prerequisites/Comments P2 Year Standing Total Credit Hours  Prerequisites/Comments P2 Year Standing P2 Year Standing P2 Year Standing	Credits   3   3     Credits   4   3	Semester F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445	Course Title IPPE I  The course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I	Prerequisites/Comments P2 Year Standing Total Credit Hours  Prerequisites/Comments P2 Year Standing P2 Year Standing P2 Year Standing P2 Year Standing	Credits   3   3	Semester F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452	Course Title IPPE I  Course Title Emaceutical Sciences  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3	Semester F F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445	Course Title IPPE I  That IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and	Prerequisites/Comments P2 Year Standing Total Credit Hours  Prerequisites/Comments P2 Year Standing P2 Year Standing P2 Year Standing P2 Year Standing	Credits   3   3	Semester F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452 PHA 467	Course Title IPPE I  That IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3	Semester F F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452	Course Title IPPE I  That IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3	Semester F F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452 PHA 467 PHA 463L	Course Title IPPE I  That IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3	Semester F F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 425 PHA 445 PHA 467 PHA 463L  Spring	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing P3 Year Standing P4 Year Standing P5 Year Standing P6 Year Standing P7 Year Standing P8 Year Standing	Credits   3   3   3   4   2   2   18	Semester F F F F	
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452 PHA 467 PHA 463L	Course Title IPPE I  That IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3   3   4   2   2   18	Semester F F F F F F	Grade
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452 PHA 467 PHA 463L  Spring Prefix + Number	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III  Course Title	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3	Semester F F F F F F Semester	Grade
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452 PHA 467 PHA 463L  Spring Prefix + Number PHA 419	Course Title IPPE I  That IPPE I  That IPPE I  That IPPE I  That IPPE I  Course Title  Biopharmaceutics and Pharmacokinetics  Biomedical Sciences II  Pharmacotherapeutics I  Pathophysiology, Pharmacology and Toxicology III  Pharmacy Practice III: Research Evaluation and Pharmacoeconomics  Pharmacy Skills Laboratory III  Course Title  Fundamentals of Health Care Practice II	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3	Semester F F F F F Semester	Grade
Summer Prefix + Number PHA 410  P2 Year- BS Phar Fall Prefix + Number PHA 415 PHA 425 PHA 445 PHA 452 PHA 467 PHA 463L  Spring Prefix + Number PHA 419 PHA 426L	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III  Course Title Fundamentals of Health Care Practice II Integrated Pharmacy Laboratory II Pharmacy Practice Law	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3   3   4   2   2   18     Credits   1   1   1	Semester F F F F F Semester S S S	Grade
Prefix + Number	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III  Course Title Fundamentals of Health Care Practice II Integrated Pharmacy Laboratory II Pharmacy Practice Law Pharmacotherapeutics II	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3   3   4   2   2   18     Credits   1   1   3   3	Semester F F F F F Semester S S S S	Grade
Prefix + Number	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III  Course Title Fundamentals of Health Care Practice II Integrated Pharmacy Laboratory II Pharmacy Practice Law Pharmacotherapeutics II Pathophysiology, Pharmacology and Toxicology IV	Prerequisites/Comments P2 Year Standing  Prerequisites/Comments P2 Year Standing	Credits   3   3   3   4   2   2   18     Credits   1   1   3   3   4   4   4   4   4   4   6   6   6   6	Semester F F F F Semester S S S S S	Grade
Prefix + Number	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III  Course Title Fundamentals of Health Care Practice II Integrated Pharmacy Laboratory II Pharmacy Practice Law Pharmacotherapeutics II Pathophysiology, Pharmacology and Toxicology IV Pharmacy Skills Laboratory IV	Prerequisites/Comments P2 Year Standing  Total Credit Hours  Prerequisites/Comments P2 Year Standing	Credits   3   3   3   4   2   2   18   Credits   1   1   3   3   4   4   2   2	Semester F F F F F Semester S S S S S S	Grade
Prefix + Number	Course Title IPPE I  Course Title Biopharmaceutics and Pharmacokinetics Biomedical Sciences II Pharmacotherapeutics I Pathophysiology, Pharmacology and Toxicology III Pharmacy Practice III: Research Evaluation and Pharmacoeconomics Pharmacy Skills Laboratory III  Course Title Fundamentals of Health Care Practice II Integrated Pharmacy Laboratory II Pharmacy Practice Law Pharmacotherapeutics II Pathophysiology, Pharmacology and Toxicology IV	Prerequisites/Comments P2 Year Standing  Prerequisites/Comments P2 Year Standing	Credits   3   3   3   4   2   2   18     Credits   1   1   3   3   4   4   4   4   4   4   6   6   6   6	Semester F F F F Semester S S S S S	Grade



#### Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
PHA 610	IPPE II	P3 Year Standing	3	Su	
		Total Credit Hours	3		

## P3 Year-Doctor of Pharmacy

#### Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
PHA 726L	Integrated Pharmacy Laboratory III	P3 Year Standing	1	F	
PHA 727	Professional Resources Management	P3 Year Standing	4	F	
PHA 742	Self Care Pharmacotherapeutics II	P3 Year Standing	2	F	
PHA 756	Pharmacotherapeutics III	P3 Year Standing	4	F	
PHA 757	Pharmacotherapeutics IV	P3 Year Standing	4	F	
PHA 763L	Pharmacy Skills Laboratory V	P3 Year Standing	1	F	
PHARM ELEC	Pharmacy Elective	P3 Year Standing	2	F	
		Total Credit Hours	18		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
PHA 719L	Pharmacy Capstone	P3 Year Standing	1	S	
PHA 724	US Health Care Systems	P3 Year Standing	2	S	
PHA 741	Public and Population Health	P3 Year Standing	2	S	
PHA 761	Pharmacotherapeutics V	P3 Year Standing	5	S	
PHA 762	Pharmacotherapeutics VI	P3 Year Standing	5	S	
PHA 764	Pharmacy Skills Laboratory VI	P3 Year Standing	1	S	
PHARM ELEC	Pharmacy Elective	P3 Year Standing	3	S	
		Total Credit Hours	19		

## **P4 Year-Doctor of Pharmacy**

Summer/Fall/Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
PHA 714	Community Pharmacy Practice	P4 Year Standing	5		
PHA 716	Hospital/Institutional Pharmacy Practice	P4 Year Standing	5		
PHA 772	Internal Medicine I	P4 Year Standing	5		
PHA 774	Ambulatory Care	P4 Year Standing	5		
APPE	Assigned APPE (two 5 credit courses)	P4 Year Standing	10		
APPE	Elective APPE (two 5 credit courses)	P4 Year Standing	10		
		Total Credit Hours	40		

## **Comments/Notes**

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the Honors program requirements.

#### Curriculum Notes

- 1. Eligible for B.S. in Pharmaceutical Sciences after completion of all general education requirements, 300 and 400-level required PHA courses, and general elective credits for a total of 138 credits.
- 2. Successful completion of the capstone activities are required as part of the degree requirements for both the BS in Pharmaceutical Science and the Doctor of Pharmacy degrees.
- 3. PHA 410 must be completed during the summer between the P1 and P2 years.
- 4. P3 year courses are taught at the University Center North in Sioux Falls. Advanced Pharmacy Practice Experiences (APPEs) are completed during Summer Sessions, Fall, and Spring Semesters.
- 5. PHA 610 must be completed during the summer between the P2 and P3 years.
- 6. General Electives: 3 credits required to be completed prior to beginning P3 Year. Credits in excess of System General Education Requirements may apply toward General Elective requirement.

**Information Subject to Change. This is not a contract.** p. = Course Prerequisite



Progression – Progression standards for students in the PharmD program are set to assure graduates are prepared to provide pharmacy services to the public. The integrated curriculum relies on information and skills garnered in previous courses and therefore, students' success depends on achieving a minimum level of performance in each course. Minimum level of performance is defined as a grade of C or better based on University Catalog grade definitions. A grade of D is defined as in terms of "insufficient" and "inadequate" according to the University Catalog. A grade of F is defined in terms of "failure." D, F, and U (unsatisfactory) grades do not represent a minimum level of performance needed to develop skills, abilities, and knowledge of a general practitioner.

Refused Status - A student will be placed on refused status if the student:

- a. Earns a D, F, or U in a pharmacy course.
- b. Does not complete the Pharm.D. program within six years of starting the professional program.

Class Standing Requirements Standing - Some pharmacy courses have prerequisites such as "P1 Year Standing", etc. These are defined as follows (note: "completion" means a passing grade in each pharmacy course and maintaining semester and cumulative PHA GPA requirements):

- P1 Year Standing The student must have been admitted into the professional program.
- P2 Year Standing Completion of all PHA 300 level required courses and PHA 119/101.
- P3 Year Standing Completion of all PHA 400 level required courses and PHA 610, a bachelor's degree, and all capstone activities are required to begin the fall semester. Completion of all required PHA 700, non-advanced practice experience courses are required to progress to the subsequent semester.
- P4 Year Standing completion of all PHA 600-700 level required, non-advanced practice courses, and 300 hours of IPPE.