

BIOMEDICAL RESEARCH, M.S. AND PHARM.D.

Students can receive both an M.S. degree from the Biomedical Research Program and a Pharm.D. degree from the School of Pharmacy. Prospective students must apply to and meet the admission requirements for both programs. The curriculum takes five years to complete. In the first year, students take BMR courses; in years 2-5 students take School of Pharmacy courses.

Plan of Study

All students are required to successfully complete:

Course	Title	Credit Hours
First Year		
First Semester		
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 680	Seminar	1
PHS 628	Mammalian Neurophysiology	2
Credit Hours		9
Second Semester		
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 680	Seminar	1
BMR 785	Intro to Research	1-6
PHS 629	Mammalian Physiology	6
Credit Hours		11-16
Second Year		
Third Semester		
PHAR 511	Clinical Immunology	1
PHAR 531	Biopharmaceutics I ¹	3
PHAR 541	Pharmacy Practice I	4
PHAR 542	Immunology and Microbiology ²	4
PHAR 546	Pharmaceutical Biochemistry	4
PHAR 811	Pharm Prac Exp I (IPPE 1)	1
Credit Hours		17
Fourth Semester		
PHAR 521	Integrated Laboratory I	2
PHAR 532	Biopharmaceutics II	3
PHAR 543	Pharmacy Practice II	4
PHAR 544	Prin of Disease & Drug Action	4
PHAR 545	Therapeutics I ³	4
PHAR 812	Pharm Prac Exp II (IPPE II)	1
Credit Hours		18
Third Year		
Fifth Semester		
PHAR 611	Integrated Laboratory II	1
PHAR 621	Pharmacy Law & Ethics	2
PHAR 622	Drug Info & Comm Skills	2

PHAR 631	Pharmacometrics	3
PHAR 632	PPM Leadership	3
PHAR 661	Therapeutics II	6
PHAR 813	IPPE 3 Community 2	1
Credit Hours		18

Sixth Semester

PHAR 612	Therapeutic Drug Dosing	1
PHAR 633	Patient Care Skills Lab	3
PHAR 634	PPM Finance	3
PHAR 635	Research Outcomes Patient Care ⁴	3
PHAR 671	Therapeutics III ³	7
PHAR 814	Intro Phar Institutions 2	1
Credit Hours		18

Fourth Year

Seventh Semester

PHAR 711	Med Therapy Management	1
PHAR 722	PPM Patient Safety	2
PHAR 741	Ther-Endocrine	4
PHAR 751	Neuro & Psychiatric Dis	5
PHAR 815	Phar Prac Exp 5 IPPE 5	1
PHAR 816	Inpatient Clinical Skills	1
Elective I		3
Credit Hours		17

Eighth Semester

PHAR 721	Therapeutics 7	2
PHAR 731	Case Studies	3
PHAR 761	HemeOnc Nutrition Hepa MS	6
PHAR 817	Intro Phar Prac Exp IPPE 7	1
PHAR 818	Education IPPE 8	1
Elective 2		3
Credit Hours		16

Fifth Year

Ninth Semester

Fall and Spring

PHAR 881	APPE 1-General Medicine	5
PHAR 882	APPE 2-Amb Care/Prim Care	5
PHAR 883	APPE 3-Advanced Community	5
PHAR 884	APPE 4-Adv Institutional	5
PHAR 885	APPE 5-Geriatrics	5
PHAR 886	APPE 6-Diverse Populations	5
Elective 3		3
Elective 4		3
Capstone 1		3
Capstone 2		3
Credit Hours		42
Total Credit Hours		166-171

¹ PHAR 531 Biopharmaceutics I and PHAR 546 Pharmaceutical Biochemistry substitute for PMC 625 Drug Metabolism and PMC 630 Chem Aspects Pharmacology.

² PHAR 542 Immunology and Microbiology substitutes for MCB 631 Medical Microbiology I.

2 Biomedical Research, M.S. and Pharm.D.

³ PHAR 545 Therapeutics I and PHAR 671 Therapeutics III substitute for BMR 680 Seminar. This will meet the 4 hr. minimum requirement for seminar for the M.S. degree.

⁴ PHAR 635 Research Outcomes Patient Care substitutes for BMR 617 BMR Statistics Technique a BMR requirement.

Non-Thesis Degree

A minimum of 36 credit hours is required for a non-thesis degree in the BMR program.

Code	Title	Credit Hours
BMR 601	Intro DNA, RNA & Proteins	3
BMR 602	Intro Cells and Metabolism	3
BMR 680	Seminar	1
BMR 628	Neuroscience I	3
BMR 603	Regulation Cell Function	2
BMR 604	Cell Basis of Disease	1
BMR 680	Seminar	1
BMR 785	Intro to Research	3
PHS 629	Mammalian Physiology	6
PHAR 531	Biopharmaceutics I	3
PHAR 542	Immunology and Microbiology	4
PHAR 545	Therapeutics I	4
PHAR 546	Pharmaceutical Biochemistry	4
PHAR 635	Research Outcomes Patient Care	3
PHAR 671	Therapeutics III	7
Total Credit Hours		48

In addition, the student must pass a written and/or an oral comprehensive examination to receive the M.S. degree.