

Attachment 1. Curriculum Map

Health Services and Outcomes Research PhD Graduate Program Curriculum Map

Available at: <https://pharmacy.hsc.wvu.edu/pharmaceutical-systems-and-policy/phd-program-in-health-services-and-outcomes-research/information-for-current-students/curriculum-by-semester/>

Curriculum by Semester

Fall Semester – First Year	Spring Semester – First Year	Summer Semester – First Year
BIOS 601 Applied Biostatistics Credit Hours-4	BIOS 603 Applied Biostatistics II Credit Hours – 3	CTS 620 Scientific Manuscript Writing and Publishing Summer Semester 2025
BMS 700 Scientific Integrity	PHAR 754 or PHAR 786 Decision Analysis in Healthcare or Health Services Research Secondary Database Credit Hours – 3	
PHAR 755 or Phar 785 Pharmacoeconomics or Pharmacoepidemiology Credit Hours– 3	PHAR 753 or PHAR 756 Social and Behavioral Theory in Health Sciences Outcomes Research or Health Survey Research Methods Credit Hours– 3	
PHAR 777 Health Outcomes Research Designs Credit Hours– 2	PHAR 788 Graduate Seminar (required every semester) Credit Hours– 1	
PHAR 788 Graduate Seminar (Required every semester) Credit Hours– 1	BMS 720 Scientific Writing (or CTS 620)	
PHAR 729 SAS Credit Hours– 2	BMS 701 Scientific Rigor and Ethics	
Electives Credit Hours– 0 to 3	Electives Credit Hours – 0 to 3	

Fall Semester – Second Year	Spring Semester – Second Year
PHAR 755 or PHAR 785 Pharmacoeconomics or Pharmacoepidemiology Credit Hours – 3	PHAR 754 or PHAR 786 Decision Analysis in Healthcare or Health Services Research Secondary Database Credit Hours – 3
PUBA 670 Health Systems Credit Hours – 3	PHAR 753 or PHAR 756 Social and Behavioral Theory Outcomes research or Health Survey Research Methods Credit Hours – 3
PHAR 769 Advanced Health Services Research Methods Credit Hours – 3	PHAR 757 Patient Reported Outcomes Credit Hours – 3
PHAR 788 Graduate Seminar (required every semester) Credit Hours – 1	PHAR 788 Graduate Seminar (required every semester) Credit Hours – 1
Electives Credit Hours – 0 to 6	Electives Credit Hours – 0 to 3

Summer – Either Year, Fall Semester, and/or Spring Semester

PHAR 797 Research Credit Hours – 1 to 6

PHAR 795 Research – Independent Credit Hours – 1 to 15

PHAR 768 Internship – HEOR/HSOR internship Credit Hours – 1 to 6

Electives Credit Hours – 1 to 6

ELECTIVES

HSOR	Quantitative Emphasis	Behavioral Emphasis	Health Policy Emphasis	Epidemiology Emphasis	Disease	Healthcare Administration
PHAR 774 Managed Care and Principles	PHAR 768 HEOR/HSOR Internship Credit Hours - 4-12 Quantitative Emphasis	SBHS 612 Intervention Design Credit Hours - 3	HPML 601 Foundations of Health and Policy Credit Hours – 3	EPID 610 Principles of Epidemiology Credit Hours - 3	CHPR 380 Women and Health Credit Hours - 3	PUBA 671 Health Care Organization/Operation Credit Hours - 3
PHAR 720 AI and Health Data	BIOS 604 Applied Biostatistics III Credit Hours - 3	SBHS 613 Program Evaluation for the Health Sciences Credit Hours - 3	HPML 622 Analytic Methods for Health Policy, Management, and Leadership Credit Hours - 3	EPID 664 Chronic Disease Epidemiology Credit Hours - 3	SBHS 634 Issues in Women's Health Credit Hours - 3	PUBA 672 Health Care Finance Credit Hours - 3
	BIOS 610 Intermediate Biostatistics Credit Hours - 4	SBHS 614 Community-Based Participatory Research Methods Credit Hours - 3	HPML 624 Policy Tools for Improving Population Health Credit Hours - 3	EPID 712 Quantitative Method in Epidemiology Credit Hours - 3	EPID 767 Maternal and Child Health Epidemiology Credit Hours - 3	PUBA 673 Alternative Healthcare Delivery Systems Credit Hours - 1
	BIOS 611 Data Management and Reporting Credit Hours - 3	SBHS 761 Qualitative Research Methods Credit Hours - 3 Health Policy Emphasis	HPML 670 Policy Analysis for Population Health Credit Hours - 3	EPID 761/762 Cardiovascular Epidemiology/Cancer Epidemiology Credit Hours - 3	SBHS 633 Women and Violence Credit Hours - 3 Health Care Administration	PUBA 674 Rural Healthcare Credit Hours - 1
	BIOS 612		HPML 671	EPID 764		PUBA 675

	Statistical Inference Credit Hours - 3		Data Informatics for Population Health and Policy Analysis Credit Hours - 3 Epidemiology Emphasis	Mind, Body, Medicine, and Chronic Illness Credit Hours - 3 Disease Emphasis		Organization Performance Improvement Credit Hours - 1
	BIOS 620 Applied Linear Models Credit Hours - 3					PUBA 774 Health Care Law and Ethics Credit Hours - 1
	BIOS 621 Categorical Data Analysis for the Health Sciences Credit Hours - 3					PUBA 775 Healthcare Policy Credit Hours - 1
	PSYC 711 Advanced Multivariate Statistics Credit Hours - 3 Behavioral Emphasis					PUBA 776 Healthcare Planning/Marketing Credit Hours - 1
						PUBH 613 Public Health Program Evaluation Credit Hours - 3