

PHARMACY, DOCTOR OF (PHARM.D.)/PUBLIC HEALTH, MASTER OF (M.P.H.) [DUAL DEGREE]

Advanced study in pharmacy and public health is available through a dual degree program co-sponsored by the Department of Pharmacotherapy and Outcomes Science in the School of Pharmacy and the Division of Epidemiology, Department of Family Medicine and Population Health, in the School of Medicine.

The dual degree Pharm.D. and M.P.H. program allows students to earn two degrees with a minimum of 191 credits rather than the 200 credits necessary if the two degrees were pursued separately. This efficiency lowers the overall cost of tuition while also reducing time to earning both degrees.

Program goals

The objectives of this dual degree program are to train students to be well-grounded in the essential knowledge, skills and attitudes of public and population health, while they achieve a Doctor of Pharmacy. Students completing the program will be able to:

- Collect, analyze, and evaluate public health data
- Plan, implement and evaluate public health interventions
- Apply results of evaluations and data analyses to policy development
- Promote community health through educational campaigns
- Synthesize and apply evidence-based information to the identification of key areas of practice and research

Among the many benefits offered by participation in the dual degree program are the following:

- Understanding of health issues on a population level
- Mastery of health behavior theory necessary for effective for health promotion activities such as community vaccination campaigns and wellness programs
- Ability to plan and evaluate health programs
- Training in epidemiological methodology and data analysis techniques
- Competitiveness in applying for pharmacy residencies

The diplomas for this dual degree program may be awarded simultaneously. Students receive both degrees after five years of study to complete the requirements of both degree programs.

Student learning outcomes

The student learning outcomes described on the individual M.P.H. concentration pages also apply to Pharm.D.-M.P.H. students.

- M.P.H. with a concentration in applied public health (<http://bulletin.vcu.edu/graduate/school-medicine/public-health-mph-concentration-applied/>)
- M.P.H. with a concentration in epidemiology (<http://bulletin.vcu.edu/graduate/school-medicine/public-health-mph-concentration-epidemiology/>)

- M.P.H. with a concentration in cancer health equity science (<http://bulletin.vcu.edu/graduate/school-medicine/public-health-mph-concentration-cancer-health-equity/>)

The educational outcomes of the Pharm.D. program (<https://pharmacy.vcu.edu/about-us/educational-outcomes/>) can be viewed on the School of Pharmacy website.

Other information

Advising

The student is assigned an adviser from each program to develop a plan of study. The M.P.H. program administrator provides guidance on course registration issues to ensure successful completion of the student's year in the M.P.H. curriculum. An M.P.H. faculty member provides guidance on the student capstone project; a Pharm.D. faculty member may collaborate in this mentoring process.

Admission requirements and application procedure

Pharm.D. students apply to the M.P.H. program in their P3 year. Applications are made through sophas.org (<https://sophas.org/>), which lists the current admission year's application deadline. A supplemental application to VCU, with an additional fee, is also required. GRE or other academic test scores are not required for the M.P.H. program application; students may choose to include PCAT scores with their application.

Students should refer to the admission requirements information for the specific concentration within the M.P.H. degree in the VCU Graduate Bulletin for additional details on admission requirements, including transcript, personal statement and recommendation letter guidelines.

Degree requirements

Students in the dual degree program are required to take a minimum of 36 credits in the M.P.H. curriculum, including 18 credit hours of core courses, a minimum of nine credit hours of concentration courses, a minimum of six credits of elective course work and a minimum of three credit hours of a capstone project that examines a relevant public health topic.

These courses within the Pharm.D. curriculum satisfy requirements in the M.P.H. degree:

Course	Title	Hours
IPEC 501	Foundations of Interprofessional Practice (satisfies an M.P.H. core requirement)	1
PHAR 509	Evidence-Based Pharmacy I: Introduction to Pharmacy Information Skills (satisfies M.P.H. elective)	1.5
PHAR 533	Introductory Pharmacy Practice Experience: Patient Care (satisfies M.P.H. elective)	.5
PHAR 545	The U.S. Health Care System (satisfies M.P.H. elective)	2
PHAR 546	Pharmacy-based Immunization Delivery (satisfies M.P.H. elective)	1.5

PHAR 565	Evidence-based Pharmacy II: Research Methods and Statistics (satisfies M.P.H. elective)	2.5
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Total Hours **9**

Students receive both degrees after five years of study to complete the requirements of both degree programs.

Curriculum requirements for the dual degree

Course	Title	Hours
Pharm.D. requirements		
IPEC 501	Foundations of Interprofessional Practice (satisfies M.P.H. requirement)	1
IPEC 502	Interprofessional Quality Improvement and Patient Safety	1
IPEC 561	IPE Virtual Geriatric Case	2
MEDC 527	Basic Pharmaceutical Principles for the Practicing Pharmacist	3
MEDC 533	Pharmacognosy	2
MEDC 542	Biotechnology-derived Therapeutic Agents	1
MEDC 553	Concepts in the Medicinal Chemistry of Therapeutics Agents	1
PCEU 507	Pharmaceutics and Biopharmaceutics I	3
PCEU 508	Pharmacokinetics	3
PCEU 509	Pharmaceutics and Biopharmaceutics II	3
PCEU 615	Applied Pharmacokinetics	2.5
PHAR 501	Pharmaceutical Calculations	1
PHAR 509	Evidence-Based Pharmacy I: Introduction to Pharmacy Information Skills (satisfies M.P.H. elective)	1.5
PHAR 513	Contemporary Pharmacy Practice	2
PHAR 515	Continuous Professional Development I	1
PHAR 523	Foundations I	1.5
PHAR 524	Foundations II	1.5
PHAR 526	Community Pharmacy Practice	2
PHAR 529	Clinical Therapeutics Module: Introduction to Special Populations	2
PHAR 530	Introductory Pharmacy Practice Experience: Community Practice	4
PHAR 532	Introductory Pharmacy Practice Experience: Hospital Practice	3
PHAR 533	Introductory Pharmacy Practice Experience: Patient Care (satisfies M.P.H. elective)	.5
PHAR 534	Foundations III	1.5
PHAR 535	Foundations IV	1.5
PHAR 540	Self-Care and Alternative and Complementary Treatments	2.5
PHAR 541	Patient Assessment in Pharmacy Practice	2
PHAR 544	Clinical Therapeutics Module: Cardiovascular	4.5
PHAR 545	The U.S. Health Care System (satisfies M.P.H. elective)	2

PHAR 546	Pharmacy-based Immunization Delivery	1.5
PHAR 549	Personalized Medicine	1
PHAR 551	Pharmacy-based Point of Care Testing	1.5
PHAR 555	Clinical Therapeutics Module: Endocrinology	2.5
PHAR 556	Clinical Therapeutics Module: Neurology	4
PHAR 565	Evidence-based Pharmacy II: Research Methods and Statistics (satisfies M.P.H. elective)	2.5
PHAR 566	Evidence-based Pharmacy III: Drug Literature Evaluation	2
PHAR 602	Clinical Therapeutics Module: Psychiatry	3
PHAR 603	Clinical Therapeutics Module: Respiratory/Immunology	2.5
PHAR 604	Clinical Therapeutics Module: Infectious Diseases	4.5
PHAR 605	Clinical Therapeutics Module: Hematology/Oncology	2.5
PHAR 606	Clinical Therapeutics Module: Nephrology/Urology	2
PHAR 607	Clinical Therapeutics Module: Dermatology/EENT	2
PHAR 615	Continuous Professional Development II	1
PHAR 618	Clinical Therapeutics Module: Gastrointestinal/Nutrition	2.5
PHAR 619	Clinical Therapeutics Module: Women's Health/Bone	2
PHAR 620	Clinical Therapeutics Module: Critical Care/Toxicology and Complex Patients	2.5
PHAR 621	Pharmacoeconomics	2
PHAR 640	Foundations V	1.5
PHAR 645	Foundations VI	1.5
PHAR 652	Health Promotion and Communication in Pharmacy Practice	2.5
PHAR 660	Community Pharmacy Practice Management II	1.5
PHAR 715	Continuous Professional Development III	1
PHAR 724	Pharmacy Law	2.5
PHAR 730	Continuous Professional Development IV	.5
PHAR 760	Acute Care Pharmacy Practice I	5
PHAR 761	Advanced Hospital Pharmacy Practice	5
PHAR 763	Ambulatory Care Pharmacy Practice	5
PHAR 765	Elective I	5
PHAR 766	Elective II	5
PHAR 767	Clinical Selective I	5
PHAR 768	Advanced Community Pharmacy Practice	5
PHAR 773	Acute Care Pharmacy Practice II	5
PHTX 606	Introduction to Pharmacology of Therapeutic Agents	1

Electives		5	(804) 828-9786
M.P.H. requirements			
• M.P.H. core requirements			
BIOS 543	Graduate Research Methods I	3	
EPID 571	Principles of Epidemiology	3	
EPID 580	Public Health Ethics	1	
EPID 593	Foundations of the Public Health Profession	2	
EPID 604	Principles of Environmental Health	3	
EPID 693	Public Health Internship	3	
EPID 694	MPH Capstone Project	3	
HCPR 601	Introduction to Health Policy	3	
IPEC 501	Foundations of Interprofessional Practice (satisfied by Pharm.D. curriculum)	1	
SBHD 605	Introduction to Social and Behavioral Health	3	
• Concentration requirements (select one concentration)			
Applied public health concentration			
EPID 600	Introduction to Public Health		
EPID 628	Public Health Program Planning and Evaluation		
SBHD 632	Health Disparities and Social Justice		
Epidemiology concentration			
BIOS 544	Graduate Research Methods II		
EPID 548	Applied Data Analysis Lab		
EPID 606	Epidemiologic Methods		
Cancer health equity science concentration			
EPID 620	Cancer Epidemiology		
SBHD 612	Fundamentals of Cancer Health Equity		
SBHD 613	Community-engaged Research and Cancer Disparities (Cancer Health Equity Science concentration)		
• Electives (minimum)			
Select courses according to the area(s) of interest in public health; PHAR 509, PHAR 533, PHAR 545, PHAR 546 and PHAR 565 satisfy eight credits toward electives.		11	
Total Hours		191	

The minimum number of credit hours required for this dual degree is 191.

Plan of study

Students in the dual program spend the first three years (P1-P3) in the professional Pharm.D. curriculum. In the fourth year, they transition to the M.P.H. program to finish 36 credits of graduate course work. In year five, students return to the Pharm.D. program to complete P4 rotations.

Students may also opt to complete 33 credit hours of didactic M.P.H. course work in year four, and finish the three-credit M.P.H. capstone project during the fifth year while completing the P4 rotations.

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Program website: familymedicine.vcu.edu/epidemiology/epidemiology-graduate-programs/mpg-program/dual-degrees (<https://familymedicine.vcu.edu/epidemiology/epidemiology-graduate-programs/mpg-program/dual-degrees/>)