

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

Advanced study in medicine and public health is available through a dual degree program offered to medical students with the M.P.H. program in the Division of Epidemiology, Department of Family Medicine and Population Health, in the School of Medicine. The dual degree M.D. and M.P.H. program allows students to earn two degrees in five years with a reduction of nine credits in the M.P.H. degree requirements, due to applicable course work completed in the M.D. curriculum, reducing the time to earning the M.P.H. degree.

The M.D./M.P.H. dual degree program provides an opportunity for medical students who wish to pursue a public health or research-oriented career to graduate from medical school trained in both clinical and preventive, population-oriented medicine. The program offers concentrations in epidemiology and applied public health. The M.P.H. program trains students to develop educational competencies established by the program's accrediting body, the Council on Education for Public Health. These competencies may be viewed on the Department of Family Medicine and Population Health website (<https://familymedicine.vcu.edu/epidemiology/epidemiology-graduate-programs/mp-h-program/competencies/>).

Graduates from this program gain insight into population health issues and the role of social determinants of health in health outcomes. They also learn to select and apply appropriate epidemiological methods. The program is well-suited for students who wish to work in preventive medicine, primary care, research, community-based health centers and state and local health departments. The Master of Public Health program boasts experiential learning, a highly interactive environment, accessible and approachable faculty, and student involvement in research and community-based projects.

## Program goals

The objectives of this dual degree program are to provide students with the skills required to advance to positions as public health practitioners in a broad spectrum of positions and settings, preparing graduates trained in medicine who also can:

- Apply epidemiological research methods
- Collect, analyze and evaluate public health or patient population data
- Administer patient and community health promotion programs
- Plan, implement and evaluate public health interventions
- Apply results of evaluations and data analyses to policy development as necessary
- Promote public health through educational campaigns

The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of public health and an ability to synthesize and apply this information to the identification of key areas of practice and research in public health and medicine.

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

- Students earn two degrees in a reduced period of time (the M.P.H. degree traditionally requires two calendar years to complete).
- Students may increase competitiveness for residency placements by holding a graduate degree in public health.
- Students will be able to apply research methods and analyze large data sets, preparing them to contribute as research team members and to further knowledge in their chosen medical or population health focus area(s).
- Students will have the skills to assess the impact of social determinants of health on population health outcomes and the effectiveness of health promotion programs and interventions.

The diplomas for this dual degree program are awarded simultaneously upon completion of the requirements of both degree programs.

## Student learning outcomes

The student learning outcomes described on the M.P.H. program concentration pages (<http://bulletin.vcu.edu/graduate/school-medicine/>) also apply to M.D.-M.P.H. students.

## Admission requirements

To be considered for the VCU M.D.-M.P.H. program, prospective students must already be enrolled in the M.D. program. During the application process to the medical school through the American Medical College Application Service (<https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/applying-medical-school-amcas/>), it is appropriate, but not required, to designate "Combined Graduate/Medical Degree" on your AMCAS application. The application to the M.P.H. program is submitted separately from the application to the M.D. program, through [sophas.org](https://sophas.org/) (<https://sophas.org/>) during the M3 year. VCU also requires a supplemental application for the M.P.H. program. Information on the application process is available on the M.P.H. program application website (<https://familymedicine.vcu.edu/epidemiology/epidemiology-graduate-programs/apply-now/>).

## Degree requirements

In addition to completing VCU School of Medicine requirements for the M.D. degree and the general VCU Graduate School graduation requirements (<http://bulletin.vcu.edu/academic-regs/grad/graduation-info/>), students must complete a minimum of 36 credit hours in the M.P.H. program. In addition, medical students will complete a public health elective during the M-4 year at a placement approved by the M.P.H. program director, in lieu of the required public health internship. Students receive nine credit hours toward the M.P.H. degree for completion of course work in the M.D. program.

Course	Title	Hours
EPID 571	Principles of Epidemiology (satisfied by Population Health and Evidence Based Medicine)	3
EPID 693	Public Health Internship (satisfied by a minimum of one public health elective during the M-4 year)	3
IPEC 501	Foundations of Interprofessional Practice (satisfied by M4 ICCS course)	1
Electives (satisfied by Patient, Physician and Society)		2
Total Hours		9

## Curriculum requirements for the M.D.

Based on the equivalent knowledge acquired by successfully completing MEDI 100, MEDI 150, MEDI 200 and MEDI 250 during the M1 and M2 years and additional courses completed during the M3 and M4 years, nine credits are satisfied (for EPID 571, EPID 693, IPEC 501 and two credits of elective course work). Courses taken to satisfy M.P.H. requirements do not satisfy M.D. requirements.

Course	Title	Hours
<b>M1 year</b>		
Fall semester (MEDI 100): 20 weeks		
	Orientation to Medical School	
	Practice of Clinical Medical Bootcamp	
	Molecular Basis of Health and Disease	
	Principles of Physiology	
	Principles of Autonomics and Pharmacology	
	Immunity and Infection	
	Foundations of Disease	
	Practice of Clinical Medicine	
	Patient, Physician and Society (satisfies two credits of MPH program elective course work)	
	Population Health and Evidence Based Medicine (satisfies EPID 571)	
	Ultrasound	
	Diagnostic Reasoning	
Spring semester (MEDI 150): 21 weeks		
	Marrow and Movement	
	Gastrointestinal	
	Endocrine	
	Reproduction	
	Practice of Clinical Medicine	
	Patient, Physician and Society	
	Population Health and Evidence Based Medicine	
	Ultrasound	
	Diagnostic Reasoning	
<b>M2 year</b>		
Fall semester (MEDI 200): 22 weeks		
	Cardiovascular	
	Pulmonary	
	Renal	
	Mind, Brain and Behavior	
	Practice of Clinical Medicine	
	Patient, Physician and Society	
	Population Health and Evidence Based Medicine	
	Ultrasound	
	Diagnostic Reasoning	
Spring semester (MEDI 250): 12 weeks		
	Step 1 Study	
<b>M3 year</b>		
Fall and spring semesters (MEDI 300): 50 weeks		
	M3 Transitions to Clerkships Workshops	
	Internal Medicine Clerkship	
	Surgery Clerkship	

	OB/GYN Clerkship	
	Pediatrics Clerkship	
	Family Medicine Clerkship	
	Neurology Clerkship	
	Psychiatry Clerkship	
	Ambulatory Clerkship	
	Foundational Career Exploratory Elective (FE)	
	Patient, Physician and Society	
	Population Health	
<b>M4 year</b>		
Fall and spring semesters (MEDI 400): 49 weeks		
	Two acting internships, one ward and one critical care (four weeks each)	
	Step 2 Clinical Knowledge and Clinical Skills exams	
	Five specialty electives (four weeks each; one of these electives satisfies EPID 693)	
	Up to five non-clinical electives (four weeks each)	
	Population Health	
	Interprofessional Critical Care Simulations (satisfies requirement for IPEC 501)	
	M4 Capstone Course	

## Curriculum requirements for the M.P.H.

Based on the equivalent knowledge acquired by successfully completing MEDI 100, MEDI 150, MEDI 200 and MEDI 250 during the M1 and M2 years, and interprofessional training during the M3 and M4 years, nine credits are satisfied (for EPID 571, EPID 693, IPEC 501 and two credits of elective course work).

Course	Title	Hours
<b>Required core courses</b>		
BIOS 543	Graduate Research Methods I	3
EPID 571	Principles of Epidemiology (satisfied by M1/M2 study)	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 (satisfied by M1/M2 study)	3
EPID 694	MPH Capstone Project	3
HCPR 601	Introduction to Health Policy	3
IPEC 501	Foundations of Interprofessional Practice (satisfied by M1/M2 study)	1
SBHD 605	Introduction to Social and Behavioral Health	3
<b>Concentration courses</b>		
	Select one of the concentrations below.	9
<b>Applied public health concentration</b>		
EPID 600	Introduction to Public Health	
EPID 628	Public Health Program Planning and Evaluation	
SBHD 632	Health Disparities and Social Justice	
<b>Epidemiology concentration</b>		
BIOS 544	Graduate Research Methods II	

EPID 548	Applied Data Analysis Lab	
EPID 606	Epidemiologic Methods	
<b>Elective courses</b>		
Satisfied by Physician, Patient and Society		2
Select a minimum of nine credit hours of course work chosen according to the area(s) of interest in public health. See the list below.		9
Total Hours		36

The minimum number of graduate credit hours required for the M.P.H. curriculum toward the dual degree is 36.

### Noncurricular program requirements

In addition to course work, students must attend 12 public health seminars and complete 20 hours of community-based service-learning.

### Electives

Course	Title	Hours
BIOS 549	Spatial Data Analysis	3
CCTR 630	Design Implications in Clinical Trials	3
CCTR 631	Adaptive Clinical Trials	1
EPID 601	Contemporary Issues and Controversies in Public Health	3
EPID 606	Epidemiologic Methods	3
EPID 620	Cancer Epidemiology	3
EPID 624	Chronic Disease Epidemiology	3
EPID 645	Public Health Genomics	3
EPID 646	Epidemiology of Psychiatric and Substance Use Disorders	3
EPID 692	Independent Study	1-6
GRAD 614	Introduction to Grant Writing	1
GRTY 501	Physiological Aging	3
GRTY 510	Aging	3
GRTY 603	Social Gerontology	3
GRTY 604	Problems, Issues and Trends in Gerontology	4
HEMS 505	Contemporary Issues in Health	3
HEMS 550	Exercise, Nutrition and Weight Management	3
HEMS 604	Nutrition for Health and Physical Activity	3
HEMS 605	Psychology of Physical Activity	3
HEMS 606	Psychosocial Aspects of Sport and Physical Activity	3
HGEN 611	Data Science I	3
HGEN 620	Principles of Human Behavioral Genetics	3
HSEP 601	Emergency Management: Response Planning and Incident Command	3
HSEP 603	Risk Assessment	3
HSEP 650	Public Health Preparedness	3
PSYC 660	Health Psychology	3
SBHD 605	Introduction to Social and Behavioral Health	3

SBHD 609	Research Methods in Social and Behavioral Health I	3
SBHD 630	Theoretical Foundations of Social and Behavioral Health	3
SBHD 632	Health Disparities and Social Justice	3
SBHD 636	Community-based Participatory Research	3
SBHD 638	Applications in Qualitative Research Methods	3
SOCY 510	Domestic and Sexual Violence in Social Context	3
SOCY 524	Aging and the Minority Community	3
SOCY 603	Seminar in Population Studies	3
SOCY 607	Seminar in Racial and Ethnic Relations in America	3
SOCY 611	Studies in the Community	3
SOCY 620	Seminar in Criminology	3
SOCY 624	Community and Community Services for the Elderly	3
SOCY 632	Intimate Partner and Sexual Violence: Medical Practice and Policy	3
SOCY 633	Application of the Policy Process to Issues of Violence	3
SOCY 634	Social Contexts of Childhood and Violence	3
SOCY 635	Theorizing Gender Violence	3
SOCY 645	The Sociology of Health and Illness	3
URSP 521	Introduction to Geographic Information Systems	3
URSP 621	Introduction to Geographic Information Systems	3
URSP 622	Community Socioeconomic Analysis Using GIS	3
URSP 625	Spatial Database Management and GIS Modeling	3

### Sample plan of study for M.P.H. year

Year one		Hours
Fall semester		
BIOS 543	Graduate Research Methods I	3
EPID 580	Public Health Ethics	1
EPID 593	Foundations of the Public Health Profession	2
HCPR 601	Introduction to Health Policy	3
Electives		9
Term Hours:		18
Spring semester		
EPID 604	Principles of Environmental Health	3
EPID 694	MPH Capstone Project	3
SBHD 605	Introduction to Social and Behavioral Health	3
Concentration electives		9
Term Hours:		18
Total Hours:		36

**The minimum number of graduate credit hours required for the M.P.H. curriculum toward the dual degree is 36.**

**Contact**

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

**M.D. program (admissions)**

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