

# M.D.-PH.D. DUAL DEGREE OPPORTUNITIES

## Overview

The M.D.-Ph.D. program trains future physician-scientists for careers that include patient care and research that advances knowledge related to human health. The program allows students to pursue both the M.D. and Ph.D. degrees using a coordinated program of study and apply a limited number of M.D. requirements toward fulfillment of requirements for the Ph.D.

The VCU M.D.-Ph.D. program is committed to a holistic application review, taking into consideration not only grades and scores, but the depth and quality of research experience, exposure to clinical medical opportunities, evidence of altruism, personal statements, and unique factors that allow the applicant to contribute to a vibrant, diverse student population. Current VCU M.D.-Ph.D. students often complete the initial review of submitted applications.

Students with disabilities, under-represented minorities and students who are disadvantaged are encouraged to apply. VCU is committed to student diversity and makes every effort to attract and recruit applicants with diverse backgrounds.

The specific graduate school requirements for a combined Doctor of Medicine, Ph.D. are stipulated in the VCU Graduate Bulletin under each of the Ph.D. programs that have this option.

## Program efficiencies

Students who enroll in the M.D.-Ph.D. program must complete all requirements for the M.D. degree, as described elsewhere in the bulletin (<http://bulletin.vcu.edu/professional-studies/medicine/medicine-md/#degree requirementstext>). In addition to the general VCU Graduate School graduation requirements (<https://bulletin.vcu.edu/academic-regs/grad/graduation-info/>), students must complete the minimum number of graduate credit hours for each program but are permitted to apply a limited number of M.D. curriculum requirements toward fulfillment of specific requirements in the Ph.D. program. For additional information on programs, use the contact information below.

## Application and admissions process

Prospective students submit applications through the American Medical College Application Service, selecting the combined medical degree/Ph.D. option. Upon review of the AMCAS documents, qualified applicants are sent supplemental admission materials. Those invited to Richmond for interviews will spend one day interviewing with members of the M.D.-Ph.D. steering committee, as well as touring labs of faculty scientists and will spend a second day in the standard interview for the School of Medicine.

In rare situations when resources allow, students matriculated in the medical school class may be considered for admission to the M.D.-Ph.D. program, usually near the start of the M1 academic year. Interested medical students initiate the process by contacting the program administrator by email. They will be asked to provide a summary of their research activities and to complete an essay explaining why they wish to be considered for the M.D.-Ph.D. program. They also must request a reference letter from someone who can evaluate their potential for research excellence to be sent directly to the program administrator.

These supplemental documents and the original AMCAS application will be reviewed to determine whether an interview will be granted.

Admission of medical students to the Ph.D. phase of training takes place formally following completion of the second year of M.D. training. A copy of the student file is transferred to the Office of Graduate Education and the individual is formally accepted to Ph.D. training by the VCU Graduate School.

The requirements for a combined professional school/graduate school degree in the School of Medicine are equivalent to those required of students seeking a graduate degree alone and are determined by the individual program.

For additional information, please see the M.D.-Ph.D. program website (<http://www.mdphd.vcu.edu/>).

## Program structure

M.D.-Ph.D. students are full-time students during both the professional and graduate phases of their education. They choose a graduate program and faculty adviser and begin dissertation research during the first summer of graduate studies. During the first year of graduate studies, students take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in virtually any area of current biomedical research in the most prestigious laboratories.

The program begins in June prior to the first year of medical school with orientation and pre-matriculation laboratory rotations before the start of medical school classes. During the first two years, students complete the pre-clinical phase of medical school and take the first part of the United States Medical Licensing Examination. They then continue to transition to M3 clerkships and complete six to eight weeks of clinical rotations. At that point they formally move to the graduate school and choose a Ph.D. program for their dissertation research.

Graduate-level course work, examinations and research are guided by the dissertation adviser and the dissertation committee, with oversight by members of the M.D.-Ph.D. steering committee. The main undertaking at this phase is research that leads to the Ph.D. dissertation. However, students acquire additional clinical skills by completing their required ambulatory core rotation longitudinally during the second and third year of graduate studies and a foundational clinical elective during the fourth year of graduate studies. After completion of all doctoral degree requirements, students return to complete their required third year medical school clinical rotations. Flexible timing of the return to full-time medical school and limited requirements during the final year of studies allow students to complete their requirements and pursue additional research projects.

## Participating programs

- Medicine, Doctor of (M.D.)/Biochemistry, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-ops/md-biochem-phd/>)
- Medicine, Doctor of (M.D.)/Biomedical Engineering, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-ops/md-biomedeng-phd/>)
- Medicine, Doctor of (M.D.)/Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-ops/md-clintransci-phd/>)

- Medicine, Doctor of (MD.)/Epidemiology, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-epid-phd/>)
- Medicine, Doctor of (M.D.)/Healthcare Policy and Research, Doctor of Philosophy (Ph.D.)
- Medicine, Doctor of (M.D.)/Human Genetics, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-humgen-phd/>)
- Medicine, Doctor of (M.D.)/Integrative Life Sciences, Doctor of Philosophy (Ph.D.) with a concentration in behavioral and statistical genetics (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-ils-beh-stat-gen-phd/>)
- Medicine, Doctor of (M.D.)/Integrative Life Sciences, Doctor of Philosophy (Ph.D.) with a concentration in bioinformatics and genome sciences, Doctor of (Ph.D.)
- Medicine, Doctor of (M.D.)/Microbiology and Immunology, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-microimm-phd/>)
- Medicine, Doctor of (M.D.)/Neuroscience, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-neuro-phd/>)
- Medicine, Doctor of (M.D.)/ Oral Health Research, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-ohr-phd/>)
- Medicine, Doctor of (M.D.)/Pharmaceutical Engineering, Doctor of Philosophy (Ph.D.)
- Medicine, Doctor of (M.D.)/Pharmacology and Toxicology, Doctor of (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-pharmtox-phd/>)
- Medicine, Doctor of (M.D.)/Physiology and Biophysics, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-physbio-phd/>)
- Medicine, Doctor of (M.D.)/Social and Behavioral Sciences, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-sbs-phd/>)
- Medicine, Doctor of (M.D.)/Public Health, Master of (M.P.H.) (<https://bulletin.vcu.edu/graduate/dual-degree-opps/md-mph/>)

## Contacts

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**Program website:** [mdphd.vcu.edu](http://www.mdphd.vcu.edu/) (<http://www.mdphd.vcu.edu/>)