PRE-MEDICAL GRADUATE HEALTH SCIENCES, CERTIFICATE IN (POST-BACCALAUREATE GRADUATE CERTIFICATE)

Program goal
The pre-medical graduate health sciences certificate program in the School of Medicine provides an advanced level of didactic training in the biomedical sciences to enhance the preparation of students for a variety of career options, particularly professional degree training (i.e. M.D./D.O., D.D.S., M.S. and Ph.D.). The program also provides the opportunity for the development of an informed approach to the admission process in professional and/or advanced degree training to enhance the prospect of advancement.

Student learning outcomes
1. Achievement of a threshold competency in the basic health sciences: The candidate will achieve/surpass expectations of a threshold-level competency in the basic health sciences, particularly in areas related to gaining admission to professional and/or higher-level degree programs.
2. MCAT/DAT preparation: The candidate will be prepared to take and/or retake standardized tests. The candidate will achieve a score that fulfills medical or dental school admission requirements.
3. Preparation for career advancement: The candidate who meets the threshold competency objective will display an enhanced level of advancement to higher levels of professional and/or advanced degree training.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs
The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website (http://www.graduate.vcu.edu/) and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

Visit the academic regulations section for additional information on academic regulations for graduate students. (http://bulletin.vcu.edu/academic-regs/)

Graduation requirements
As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Visit the academic regulations section for additional information on graduation requirements. (http://bulletin.vcu.edu/academic-regs/grad/graduation-info/)

Other information
Applying to professional school and advanced graduate degree programs
Students must follow admission guidelines for applications to the M.D./D.O., M.S., D.D.S. and other programs. Completion of the certificate program does not afford a guaranteed admission to professional training programs at VCU. Exceptional performance, 3.5 GPA and a 28 MCAT guarantees an interview at VCU School of Medicine. Similar criteria increase eligibility for an interview at the VCU School of Dentistry.

Advising: Students are encouraged to seek opportunities for academic, personal and professional development from the Division for Academic Success, Career Services and the CERT Program Office. For students who choose to take a year off between CERT and professional school, several School of Medicine professors hire students for research positions and area hospitals offer Scribe programs that actively recruit VCU graduates. The CERT Program Office can also help identify possibilities.

Letters of reference: The CERT program adviser will provide a letter of reference for professional school applications. Students must schedule an appointment to interview with the program adviser for a letter.

Apply online at graduate.admissions.vcu.edu (http://www.graduate.admissions.vcu.edu).

Admission requirements

<table>
<thead>
<tr>
<th>Degree</th>
<th>Semester(s) of entry</th>
<th>Deadline dates:</th>
<th>Test requirements:</th>
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</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>Fall</td>
<td>Jul 16</td>
<td>GRE, MCAT or DAT no more than five years old; TOEFL for international students</td>
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|          | Spring               | Nov 15          |

Special requirements
- While there is no official deadline for applying to the certificate program, the school strongly recommends applicants have all materials into the graduate admissions office by July 16 (for fall semester matriculation) or Nov. 15 (for spring semester matriculation) to ensure that the file can be processed in time for the appropriate semester. The program has rolling admissions for a limited number of positions.

Applicants must meet all general admission requirements of the VCU Graduate School (http://bulletin.vcu.edu/graduate-study/admission-graduate-study/admission-requirements/).
Pre-medical Graduate Health Sciences, Certificate in (Post-baccalaureate graduate certificate)

Degree requirements
In addition to general VCU Graduate School graduation requirements (http://bulletin.vcu.edu/academic-regs/grad/graduation-info/), students must complete a minimum of 27 graduate credit hours of course work with a minimum final GPA of 3.0 (4.0 scale). The curriculum is composed of three required courses (15 credit hours) and 12 credit hours of electives spread over two semesters. The curriculum should be completed in one academic year (fall and spring semester).

Required and elective courses are drawn from departments within the School of Medicine: the departments of Anatomy and Neurobiology, Biochemistry and Molecular Biology, Human and Molecular Genetics, Microbiology and Immunology, Pharmacology and Toxicology, and Physiology and Biophysics. All courses are held on the MCV Campus. In addition to the elective courses shown other courses may be applied as electives with the approval of the course director.

Curriculum requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOC 503</td>
<td>Biochemistry, Cell and Molecular Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOC 504</td>
<td>Biochemistry, Cell and Molecular Biology</td>
<td>5</td>
</tr>
<tr>
<td>PHIS 501</td>
<td>Mammalian Physiology</td>
<td>5</td>
</tr>
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Electives
Select 12 credits from:

- ANAT 608 Functional and Clinical Neuroanatomy
- ANAT 611 Histology
- ANAT 612 Human Embryology
- ANAT 691 Special Topics in Anatomy
- HGEN 501 Introduction to Human Genetics
- IBMS 690 Basic Health Sciences Research Seminar
- IBMS 691 Special Topics in Interdisciplinary Biomedical Sciences
- IBMS 692 Special Topics in Interdisciplinary Biomedical Sciences
- MICR 505 Immunobiology
- PHIS 512 Cardiac Function in Health and Disease
- PHTX 536 Principles of Pharmacology and Toxicology
- PHTX 630 Basic Concepts in Pharmacology for Graduate Students
- PHTX 691 Special Topics in Pharmacology

Total Hours
| 27 |

The minimum total of graduate credit hours required for this certificate is 27.

Graduate program director
Vacant - Contact Certificate program office for information.

Additional contact
Judy Silberg, Ph.D.
Program adviser
jsilberg@vcu.edu

Certificate program office
premedcert@vcu.edu
(804) 828-9501

Program website: medschool.vcu.edu/graduate/premed_cert (http://www.medschool.vcu.edu/graduate/premed_cert/)