TEACHING, CERTIFICATE IN (POST-BACCALAUREATE GRADUATE CERTIFICATE) WITH A CONCENTRATION IN PHYSICS EDUCATION

Program goal
The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor’s degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master’s degree is not a priority. This program is for applicants who may already have earned a master’s degree or wish to earn a master’s degree in a specialized area of education later. Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor’s level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes
Persons completing the program are expected, among other attributes, to:

1. Understand human development and learning theory appropriate to the age group they will teach
2. Demonstrate knowledge of the subjects they will teach
3. Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
4. Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
5. Demonstrate an ability to plan and implement effective teaching
6. Measure student learning in ways that lead to sustained development and learning

Special requirements
- Admission to clinical experiences in schools requires a background check and fingerprinting.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

1. Bachelor’s degree with a major, or equivalent, in physics
2. Three letters of recommendation addressing the student’s potential for graduate study in education

Degree candidacy requirements
A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student’s graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student’s faculty regarding the student’s academic achievements and the student’s readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

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.

Admission requirements

<table>
<thead>
<tr>
<th>Degree</th>
<th>Semester(s) of entry</th>
<th>Deadline dates:</th>
<th>Test requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>Fall</td>
<td>Feb 1</td>
<td>GRE or MAT</td>
</tr>
<tr>
<td></td>
<td>Spring</td>
<td>Oct 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>Feb 1</td>
<td></td>
</tr>
</tbody>
</table>

Visit the academic regulations section for additional information on degree candidacy requirements. (http://bulletin.vcu.edu/academic-reg/grad/candidacy)

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

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-reg/grad/candidacy)

Degree candidacy requirements
A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master’s or doctoral status according to the degree candidacy requirements of the student’s graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student’s faculty regarding the student’s academic achievements and the student’s readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

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 degree candidacy requirements. (http://bulletin.vcu.edu/academic-reg/grad/candidacy)

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>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>Fall</td>
<td>Feb 1</td>
<td>GRE or MAT</td>
</tr>
<tr>
<td></td>
<td>Spring</td>
<td>Oct 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>Feb 1</td>
<td></td>
</tr>
</tbody>
</table>

Special requirements
- Admission to clinical experiences in schools requires a background check and fingerprinting.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

1. Bachelor’s degree with a major, or equivalent, in physics
2. Three letters of recommendation addressing the student’s potential for graduate study in education

Visit the academic regulations section for additional information on academic regulations for graduate students. (http://bulletin.vcu.edu/academic-reg/grad/candidacy)
3. Student's written statement concerning career interests
4. Transcripts of all previous college work
5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center (http://www.soe.vcu.edu/student-services-center) section on the School of Education website for current testing requirements.

Degree requirements

In addition to the VCU Graduate School graduation requirements (http://bulletin.vcu.edu/academic-regs/grad/graduation-info), students are required to complete course work in core and elective courses.

1. Credit hour requirements: Students are required to complete a minimum of 33 credit hours depending on concentration. Note that three credit hours are taken at the undergraduate level.
2. Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
3. Student teaching requirements: Students must successfully complete approved student teaching experience.
4. Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses taken at the undergraduate level

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEDU 311</td>
<td>Middle School Practicum (taken concurrently with TEDU 537)</td>
<td>2</td>
</tr>
<tr>
<td>TEDU 312</td>
<td>High School Practicum (taken concurrently with TEDU 540)</td>
<td>1</td>
</tr>
<tr>
<td>EDUS 673</td>
<td>Seminar on Educational Issues, Ethics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>EDUS 617/PSYC 657</td>
<td>Advanced Educational Psychology for Secondary Teachers</td>
<td>3</td>
</tr>
</tbody>
</table>

Foundations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEDU 537</td>
<td>Secondary School Curriculum</td>
</tr>
<tr>
<td>TEDU 540</td>
<td>Teaching Middle and High School Sciences</td>
</tr>
<tr>
<td>TEDU 562</td>
<td>Reading Instruction in the Content Areas</td>
</tr>
<tr>
<td>TEDU 588</td>
<td>Classroom Management</td>
</tr>
<tr>
<td>TEDU 681</td>
<td>Investigations and Trends in Teaching</td>
</tr>
</tbody>
</table>

Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEDU 572</td>
<td>Internship</td>
</tr>
<tr>
<td>TEDU 614</td>
<td>Internship II</td>
</tr>
</tbody>
</table>

Total Hours: 33

Total graduate credit hours required (minimum) 30

Program requirements consist of three undergraduate and 30 graduate credits.

Graduate program coordinator
Elizabeth Edmondson, Ph.D.
Instructor, Department of Teaching and Learning