TEACHING, MASTER OF (M.T.) WITH A CONCENTRATION IN BIOLOGY EDUCATION

Program goal
The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, or secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics or physics).

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education
The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, early science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program (http://bulletin.vcu.edu/graduate/school-education/extended-teacher-preparation-program) is available in this bulletin.

Student teaching requirements
All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes
Science education
1. Demonstrate content knowledge in science: Candidates demonstrate content knowledge in science as evidenced by the Praxis II scores.
2. Demonstrate conceptual content knowledge: Candidates demonstrate knowledge of the conceptual science to be taught and related fields, and that they are well-prepared in the breadth of knowledge needed to teach in their fields of licensure as evidenced by GPA in major courses.
3. Effectively plan classroom-based instruction: Candidates demonstrate the ability to plan effective classroom-based instruction and design assessments, consistent with the goals of the National Science Education Standards as evidenced by the unit plan assessment.
4. Effectively apply knowledge, skills and dispositions during student teaching: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation.
5. Demonstrate effects on student learning: Candidates demonstrate positive effects on student learning of major concepts, principles, theories, laws; the unifying concepts of science; the nature of science; the practice of inquiry (including student engagement in inquiry); analysis of issues related to science and technology; and the impact of science on themselves and their community as evidenced by the assessing student learning portion of the clinical evaluation.
7. Knowledge of research and investigation in science: Candidates demonstrate knowledge of research and investigation in science and understand multiple forms of scientific inquiry; can design, conduct and report research in their field; and can use mathematics and appropriate technology to collect, process and explain data as evidenced by the student-generated research assessment.
8. Knowledge of the contextual content of science: Candidates demonstrate knowledge of the contextual content of science and have a strong understanding of the socially relevant issues, social context, history, philosophy and applications of science as evidenced by the nature of science reflection assignment.

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.graduates.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-regulations)

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.

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

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

Admission requirements

Degree:  Semester(s) of  Deadline dates:  Test
entry:  requirements:
M.T.  Fall  Feb 1  GRE or MAT
                    Spring  Oct 1
                     Summer  Feb 1

In addition to the general admission requirements of the VCU Graduate
School (http://bulletin.vcu.edu/graduate/study/admission-graduate-
study/admission-requirements), the following requirements represent the
minimum acceptable standards for admission:

1. Bachelor’s degree with a major, or equivalent, in the subject the
student wishes to teach (for secondary) or an appropriate liberal
arts major (for early/elementary) (Students in the five-year extended
program must be pursuing an appropriate bachelor’s degree.)

2. Three letters of recommendation addressing the student’s potential
for graduate study in education

3. Student’s written statement concerning career interests

4. Transcripts of all previous college work

5. Satisfactory scores on the GRE or MAT

Additionally, 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.

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

Degree requirements
In addition to general 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 33-34 credit hours depending on concentration.

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. Note: Students
must complete all undergraduate courses before student teaching.

4. Additional testing requirement: Students must pass Praxis II, where
applicable, for licensure.

Curriculum requirements

Undergraduate courses

Qualifying courses
EDUS 301  Human Development and Learning  3
EDUS 673  Seminar on Educational Issues, Ethics
and Policy  3
TEDU 537  Secondary School Curriculum  3
TEDU 540  Teaching Middle and High School
Sciences (fall only)  3
TEDU 562  Reading Middle and High School
Areas  3
TEDU 588  Classroom Management  3

Elective
Select one of the following:
EDUS 610  Social Foundations of Education  3
SEDP 505  Theory and Practice of Educating
Individuals with Special Needs
TEDU 531  Media Literacy in the K-12 Classroom
TEDU 619  Multicultural Perspectives in Education
TEDU 651  Special Topics in Education (selected
sections)

Clinical experience (spring only)
TEDU 672  Internship  4
TEDU 674  Internship II  5
TEDU 681  Investigations and Trends in Teaching
(must be taken concurrently with
TEDU 672 and TEDU 674)  3

Total Hours  33

Total graduate credit hours required (minimum)  33

Other curricular options

Students who already possess a content major in a discipline appropriate
for secondary education may pursue a post-baccalaureate certificate.
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Program website: soe.vcu.edu (http://www.soe.vcu.edu)