COMPUTER SCIENCE EDUCATION CGS

All Students must meet the Requirements for the Certificate of Graduate Study.

OVERVIEW

Fulfilling a Critical Need

Very few educators are licensed to teach computer science in Vermont, yet the majority of principals say that computer science is equally or more important than required core classes. UVM's Certificate of Graduate Study in Computer Science Education is designed for educators interested in teaching computer science (grades 7-12) as well as others who work in non-school settings. Our goal is to educate the next generation of computer science teachers who will encourage and support diverse groups of students to become computer science literate and consider computer science careers. The certificate includes 5 online courses (18 graduate credits) as outlined under the Minimum Degree Requirements section of this page.

Upon completion of the certificate, previously licensed Vermont educators will be eligible for a teaching licensure endorsement in Computer Science Education through the Vermont Agency of Education.

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the Certificate of Graduate Study

Students are required to have earned a bachelor's degree from an accredited college or university.

Candidates will be required to hold a teaching license in middle or secondary education in any approved subject area endorsed by the Vermont Agency of Education (or other state agencies of education). A minimum 2.75 overall and content GPA will be required for admission to the Certificate of Graduate Study in Computer Science Education.

In addition, candidates will need to provide 2 letters of recommendation, an application essay/statement of purpose, undergraduate and/or graduate transcripts, and a stated commitment to teaching computer science to students in grades 7-12.

Minimum Degree Requirements

The breadth of the 5 courses cover the range of Vermont Agency of Education Computer Science endorsement standards. Each course is a deep dive into a subset of the competencies that are required for licensure in computer science.

Courses also provide the opportunity to develop curricula related to the topic with opportunities to peer-teach related lessons and activities. Students thinking about, practice, and receiving feedback about best pedagogical strategies and curriculum development in computer science.

Requirement Description		Credits
Required coursework includes 18 graduate credits in the following sequential order of course progression:		
EDCI 5001	Python Program for Educators	4
EDCI 5002	Java Programming for Educators	4
EDCI 5003	Web Design for Educators	4
EDCI 5004	Computer Organization for Educ	3
EDCI 5005	Data Science for Educators	3