

Certificate in Computing Education (CCE)

The Certificate in Computing Education (CCE) is designed to address the needs of teachers who seek to deliver effective and engaging curricula in computer science and/or introduce the new literacy of computational thinking to K-12 students. The CCE program provides teachers the knowledge, skills and competencies to teach introductory computer science courses such as Exploring Computer Science and Computer Science Principles. The program will also help teachers to develop their own developmentally appropriate curricula in computing for students in K-12 settings. This Certificate of Graduate Study provides a competitive advantage for teachers with interests in the rapidly growing arena of computer science and information technology. All courses in the CCE Program are also applicable to the Master's Degree in Curriculum Development and Instructional Technology.

Program of Study (15 credits)

Required courses:

- ETap 540 Learning and Teaching Computer Science Principles (3)
- ETap 650 Educational Computing in the Math/Science Class (3)
- ETap 652C Teaching Computing in the Secondary School (3)

Two electives - students are able to pick one of the four concentration, a combination of those courses, or other special topics offered at the two departments based on the students' need and faculty advice:

A. Computer Game

- ETap 534 Introduction to Games for Learning: Theory and Practice (3)
- ETap 535 Introduction to Game Design for Educators (3)

B. Computing

- ETap 526 Educational Computing (3)
- IInf 596 Special Topics in Informatics/CS (3)

C. Instructional Technology

- ETap 628 Instructional Design for Technology (3)
- ETap 639 K-12 Online Teaching and Learning (3)

D. Other Special Topics - students can work with their advisors to choose other electives offered at the two departments that meet their learning needs.