



Post-Master's Certificate

# Digital Literacy Computer Science Certificate

• CIP code 130501 • 15 credits, 2-3 terms •

**Program Description** — The Digital Literacy Computer Science Certificate (DLCS) serves licensed science, math and library teachers who seek this additional add-on license. The course work provides the necessary depth and content knowledge needed to support the expectations outlined in the Massachusetts Curriculum Framework 2016 and addresses the subject matter knowledge as outlined by the Massachusetts Dept. of Elementary and Secondary Education for the new Digital Literacy and Computer Science licensure (K-12).

The demand for this license is great since the state government has issued guidelines for all schools to integrate digital and computer science literacy and courses K-12 to prepare students for high tech working environments.

The program and coursework are all online. Two courses are offered each term.

**Learning Outcomes** — Graduates demonstrate the knowledge and skills expected of professional educators by regional, state and national accreditation bodies. They understand the principles and concepts of computing and society, including cyberbullying, safety security issues, and technology laws as well as recovery strategies. They evaluate the impact of technology and assistive technologies in people's lives, commerce and society. They demonstrate advanced research skills and strategies to identify and evaluate and credit sources and information. In addition, they utilize digital tools and resources to enhance communication and collaboration, solve problems, and publish online by demonstrating an understanding of computer systems, programming and computational thinking.

**Careers** — Computer science teacher (5-12)

**Courses required may vary based on transcript analysis, reviewed by Program chair.**

**Courses** ..... 15 credits

- SCI 634 Computational Thinking: Data Structures & Algorithms
- SCI 636 Computers, Software & Networks
- SCI 637 Computers & Society
- SCI 638 Computer Programming
- SCI 640 Network Security & Safety

**Admission requirements:**

- School of Education requirements for certificate programs.
- Master's degree required.
- Massachusetts teachers who hold an initial or professional license may elect to add this digital literacy license by submitting this coursework on their own to the Massachusetts Department of Elementary and Secondary Education (DESE) for transcript approval. Part of the approval process will include 150 hours of teaching digital literacy in a school setting; this can be submitted by a school principal on official letterhead. There is no MTEL for this license.

**Transcript analysis:** Subject Matter Competency for Digital Literacy will be evaluated through transcript analysis by the program chair, following the Subject Matter Knowledge Standards for the Massachusetts Digital Literacy License (see [www.doe.mass.edu](http://www.doe.mass.edu)). Only coursework completed within the last seven years, with grades of B or better will be considered.

**\*Program credits:** Additional credits may be required for competencies not satisfied before enrollment; credits may be reduced if any competencies have already been covered acceptably.

**Program subject to change.**

**Program chair:** John Papadonis  
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All courses 3 credits except as noted.