State-Approved (Chapter 74)
Program Overview

Programming and Web Development

Computers know how to perform tasks, solve problems, or display information on the internet because of the work of computer programmers and web developers.

What Students Learn & Do

Programming and Web Development programs provide a broad foundation in the tools, languages, and career paths into the world of Computer Science. Through projects and work-based experiences, students investigate and work with computer programming languages, web design and development tools, graphic design tools, and tools for 3D animation and game design.

The curriculum provides students with technical training related to software development, cybersecurity, photography, animation, building web pages and apps, and working with data. General career readiness skills and workplace safety are also covered by the curriculum. By the time they complete their training, students will be fully equipped for entry level roles in computer programming or web development; or to enter college with a head start on their computer science degree.

Programming and Web Development students are required to meet the same high academic standards as their peers outside of these programs. These standards are set by the State of Massachusetts. In addition, aspects of mathematics and engineering are underscored through the curriculum.

Licenses & Certifications

Programs will prepare students to earn industry-recognized credentials, and typically students will be able to complete one or more before they graduate from high school. Examples students might achieve during this program. Examples:

- OSHA 10-Hour - General
- CertiPort MTA Certification Exams
- CompTIA Certification Exams

Options After High School

State-Approved (Chapter 74) programs provide precise training required for entry-level employment in this in-demand career field. Here are some possible Programming and Web Development career opportunities.

High School Diploma

- Computer Programmer
- Game Tester
- Web Programmer

Advanced Training or Associate Degree

- Game Designer
- Mobile/Apps Developer
- Network Security Administrator

Master's Degree (MBA)

- Computer & Information Research Scientist
- Computer Engineer
- Information Technology Project Manager

Questions to Ask a Program You Are Considering

1. **What workplace experiences do you offer to students - at school, or with an employer?**
2. **What are some common next steps for graduates of this program and how do you support them to get there?**

Learn about the differences between State-Approved (Chapter 74) and Local programs:
http://www.doe.mass.edu/ccte/cvte/cte-families/state-vs-local.html

MASSACHUSETTS DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION

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