State-Approved (Chapter 74)
Program Overview

Engineering Technology

Always in demand, engineers use math and science to devise solutions within specialized fields such as electrical, mechanical, robotics, computers, construction and manufacturing.

What Students Learn & Do

Engineering Technology Programs merge academic exploration with technical training and hands-on experimentation. Technology is constantly changing, and programs therefore emphasize the engineering design process–which involves analysis, problem solving, and developing solutions. Computer applications, professional communication skills, and a strong work ethic are emphasized as students build experience with skills necessary to succeed in their future careers.

Different Engineering Technology programs may offer deeper exploration of specific Engineering fields, but students will also be exposed to the broad range of options that they might choose to pursue at the college level. Examples include Aerospace Engineering, Bio-Engineering, Civil Engineering, Geophysical and Environmental Engineering, Electrical and Mechanical Engineering, Electronics, Robotics, and Architecture.

Graduates of Engineering programs are required to meet the same high academic standards as their peers in other high school programs. These standards are set by the State of Massachusetts. By definition, Engineering programs rely on extensive academic work in mathematics, computer science, physics and other sciences.

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.

- OSHA 10 hour - General
- Lego "Mindstorm"
- VEX (RobotC)
- Computer Assisted Design: AutoDesk Inventor, Solidworks

Options After High School

State-Approved (Chapter 74) programs provide precise training needed for entry-level employment. Here are some possible career opportunities for Engineering program graduates, and how to get there.

High School Diploma

- Electrical / Electronics Technician
- Robotics Technician
- Industrial Sensor & Instrumentation Technician

Associate Degree (2 Years)

- Manufacturing/Industrial Engineering Technician
- Quality Assurance Technician
- Robotics Programmer

Bachelor's Degree (4 Years of College)

- Electronics Engineer
- Mechanical Engineer
- Civil Engineer
- Architect
- Aerospace Engineer

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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