

Changes to Program of Studies Robotics addition

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Career & Technical Education Academy

Imagine your future. Do you see yourself . . .

- working in the exciting and rewarding health care field?
- designing and creating plans, as well as cost estimates, for future building and development projects?
- choosing from worldwide employment opportunities in the Automotive Industry after becoming an ASE Certified Mechanic
- working on exciting building projects, while receiving excellent training for post-secondary opportunities in construction and structural engineering?
- becoming a stylist, working in theatrical makeup design or becoming a certified cosmetologist?
- opening your own restaurant or bakery?
- working in one of the many urban fine dining establishments in New York, Boston, or Chicago?
- applying and performing problem-solving duties associated with the integration of electrical, electronic and mechanical devices as a robotic engineer.

Weymouth High School's Career and Technical Education's cutting-edge, industry-endorsed educational programs offer students a more focused route toward higher education and career success. A Weymouth Career and Technical Education graduate is ensured success in both college academics and the working world.

Students enter Career and Technical Education (CTE) through acceptance into the Exploratory Program. This fast paced, constantly evolving program, presents introductory information to all students from all Career and Technical areas in the first half of the year. After this experience, the student will choose three areas of concentration. Based upon an instructor generated evaluation, the student will enter one of his/her choices for the remainder of the year.

This introduction is followed by three years of progressively intensive study in their chosen field. During this time, the student is encouraged and directed to concentrate on the achievement of a nationally recognized standard, such as the American Culinary Certification. All Career and Technical education students are on a direct pathway to post-secondary education in the form of an associate degree or higher. This is accomplished through articulation agreements with Colleges and Technical Institutes in the United States.

Mission Statement:

The Career and Technical Education Program cultivates student potential by integrating rigorous classroom instruction with relevant, work-based experiences that inspire, guide and empower them for post-secondary college and careers. As an investment in the future of our communities, our state, our nation, and our world, CTE programs cultivate the academic, employability and technical skills that prepare young adults for leadership roles in our ever-changing world.

Career exploration available in this academy:

- Allied Health
- Architectural Drafting
- Automotive Technology

- Construction Technology
- Cosmetology

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- Culinary Arts
- Early Childhood Education
- Graphic Arts
- Information technology
- Metal Fabrication
- Robotics and Automation Technology

Career and Technical Education Academy Requirements:

CTE: 7.7 -9.7 credits

CTE Capstone 1.0 credit

Total Credits upon completion of Academy 8.7-10.7 credits

CAREER & TECHNICAL EDUCATION	<u>SOPHOMORES</u> need: CTE Program (2 periods)	<u>JUNIORS</u> need; CTE Program (3 or 4 periods)	<u>SENIORS</u> need; - CTE Program (3 or 4 periods) -OSHA 10
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Change font as program is approved by the State

Robotics and Automation Technology

Students will work with computer aided drafting, 3-D printing and both inductrail control theory and relay ladder logic circuits to gain an understanding of the field as well as career pathways.

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Addition of Robotics Elective to Science Department

17390/17391 COMPARATIVE ANATOMY

Honors/College-Prep

(.5 credit)

Laboratory Science

Comparative Anatomy is the study of the structural and functional evolution of selected organ systems in a variety of different species. The first part of the course reviews the principals of the comparative method and the phylogenetic (evolutionary) relationships among different species. Lectures will focus on vertebrate diversity, biomechanics, and behavior (from running, feeding, swimming, flying, seeing, and hearing). Labs involve detailed dissection of animals (muscles, bones, organs, brains) and a focus on skull bones in a broad comparative context from fishes to frogs, turtles, alligators, mammals, birds, and humans. *Prerequisite:* successful completion of Biology (Semester course, open to grades 11,12)

XXXXX/XXXXX Robotics

Honors/College Prep

(.5 credit)

VEX Robotics is divided into twelve units. In a flexible format, students learn about engineering and engineering problem solving. Students will be introduced to VEX Robotics Design System and Autodesk Inventor while learning key STEM principles through a process that captures the excitement and engagement of robotics competition. The curriculum is heavily focused on mechatronic principles; as such, programming is not required. (Semester course open to grades 10, 11, 12)