

Career Technical Education

Manufacturing and Technology

Course Title	Prerequisite	Grade Level	Length of Course	Credits Per Year	Meets Graduation Requirements in:
Robotics I	Geometry	10-12	1 semester	0.5	CTE, EL

This course covers the basic concepts of computer programming and engineering leading to an understanding of the creation and programming of robotics. Robotics courses help students develop and expand their skills and knowledge of robotics and related scientific and engineering topics. Course topics might include principles of mechanics, electronics, hydraulics, pneumatics and programmable logic controllers.

Robotics II	Robotics I, Geometry	10-12	1 semester	0.5	CTE, EL
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This course expands on the basic concepts of computer programming and engineering leading to the understanding of creation and programming of robotics in real world applications. Robotics courses help students develop and expand their skills and knowledge of robotics and related scientific and engineering topics. Course topics might include principles of mechanics, electronics, hydraulics, pneumatics, programming logic controllers, project management, marketing and presenting engineering designs. Robotics I is a prerequisite to Robotics II.

Robotics III	Robotics I & II Geometry	10-12	1 semester	0.5	CTE, EL
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This course expands on the advanced concepts of computer programming and engineering leading to an understanding of creation and programming of competition robotics in real world applications. Robotics courses help students develop and expand their skills and knowledge of robotics and related scientific and engineering topics. This course will go beyond the basics of robotic and test the students' skills in designing, programming and building robots. Course topics may include principles of mechanics, electronics, hydraulics, pneumatics, programmable logic controllers, organization and presentation, and design applications. Robotics II is a prerequisite to Robotics III.

App. Design I	Intro Comp. Sci	10-12	1 semester	0.5	CTE, EL
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Intro to App. Development with Swift is a course designed by Apple engineers and educators to teach students elements of app design using Swift, one of the world's most popular programming languages. Students will learn to code and design fully functional apps, gaining critical job skills in software development and information technology. Throughout this app coding course, students build working apps for Apple's mobile devices using the language and tools of professionals – Swift and Xcode. Students experience an authentic workplace environment applying the methodologies and practices of real-world developers and acquire skills around teamwork.