

# Career & Technical Course Offerings through the College Express Program

# Industrial Technology

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The Industrial Technology program is offered during the afternoon College Express. From production to performance, from management to quality control, students will learn blueprint reading and basic manufacturing processes.

Industrial Technology skills can lead students on a pathway to become employed as a CNC Machinist, Quality Control Tech or a Precision Measurement Tech. Students enrolled in Industrial Technology can also earn college credit during high school and will take the following classes if they complete both years of the program:

***DRAF 162 Technology in Advanced Manufacturing***  
(Spring 20) 3 hours

Introduction to common classifications of materials in industry with emphasis on properties and common processes associated with utilization.

***MFRG 160 Machining I*** (Spring 21) 3 hours

This course is an introduction to machine tools and processes associated with the machine trade. Students are taught the fundamentals of shop safety, the use of metal hand tool, bench and layout work and the skills needed for the preparation for metal removal processes. Machine shop measurements using precision measuring devices are stressed in the course.

***MFRG 105 Mechatronics I*** (Fall 19) 3 hours

This introductory course will provide the student with an overall perspective and foundation for the industrial maintenance field. The student will be taught the fundamentals of machine operations commonly utilized in the manufacturing industry. Topics such as general maintenance procedures, consumable supplies, fasteners, and machine operating specifications will be covered. In addition, high emphasis will be placed upon the understanding of machine blueprints which detail all the systems which are part of a functioning machine. Students will also be exposed to parts and specification manuals utilized in the repair of industrial machinery. Finally, students will begin to learn the logical process utilized in the diagnosis of broken, worn, and defective machinery. Safety will be stressed throughout the course.

***ELEC 104 Key Principles of Advanced Manufacturing*** (Fall 20) 3 hours

An explanation of requirements and recommended programs for improvement of job safety and health under current Federal and State mandates. Emphasis given to preventive program procedures.

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