

Early College and Career Academy
Industrial/Manufacturing Technology
Class List

CAD 113 Computer-Aided Machine Design I Design process with practical and computer-aided evaluation of power transmission devices, including gears, shafts, belts, chains, and other components using SolidWorks software.	4-0-4
CAD 121 Materials for Industry (IAI IND 912) Survey of materials used by design engineers; ferrous metals, nonferrous metals, plastics, and ceramics; testing, heat-treating, finishing, and use of adhesives.	3-0-3
CAD 124 Introduction to AutoCAD (Computer-Aided Drafting) (IAI MTM 911) Introduction to computer-aided drafting using AutoCAD software; architectural, mechanical, and electrical Applications.	3-0-3
MFT 110 Mechanical Assemblies Interpreting documentation for assembly and installation requirements; fundamentals of power transmission; basic and precision measuring tools; fasteners, tools, and torque specifications; bearing types and applications; seals; gaskets; lubrication.	2-2-3
MFT 113 Introduction to Hydraulics and Pneumatics Introduction to theory and applications of fluid and pneumatic power transfer and control.	3-0-3
MFT 121 Basic Machine Processes (IAI MTM 921) General machining procedures including basic operations of lathe and mill. Basic bench work operations including layout and hand tools. Basic machine tool projects using cross section of machine tool equipment.	2-2-3
MFT 127 Introduction to CNC Programming Introduction to computer numerical control (CNC) and programming CNC machines. Emphasis on fundamentals of CNC lathe and mill operations and good programming practices.	4-0-4
WLD 111 Introduction to Welding (IAI MTM 936) Selection and use of electric arc, oxyacetylene, inert gas, and wire-feed welders; emphasis on skills and competencies as demanded by industry.	2-4-4