

ADVANCED MANUFACTURING APPRENTICESHIP

SUNY Ulster is registered as a Related Instructor provider with the New York State Education Department. Under the Council of Industry, SUNY Ulster supports apprenticeship programs in CNC Machinist, Toolmaker, Maintenance Mechanic, Welder, Electronics Technician, Electromechanic Technician, Quality Assurance Auditor and Industrial Manufacturing Technician.

ADVANCED MANUFACTURING PRE-APPRENTICESHIP PROGRAM

Pre-apprenticeship programs can play a valuable role in preparing qualified entry-level workers for Registered Apprenticeship careers while contributing to the development of a diverse and skilled workforce. Students completing this series of courses will earn an industry-recognized credential and may qualify for credit towards an apprenticeship program.



MATHEMATICS FOR MANUFACTURING

Strengthen mathematical skills needed for the set-up and operation of machine tools and computer numerical control (CNC) programming. Mathematical operations including fractions, exponents, basic algebra and trigonometry will be reviewed. Prerequisite: Basic Mathematics.

Instructor: R. Eckmann

DCB 2064-02 W 9/26-10/24 6:30-8:30pm KSU \$199

ELECTRICAL THEORY I BASICS

Learn electrical theory basics for a variety of professional fields including the manufacturing field. Course will cover basic electrical distribution, identifying and selecting electrical equipment, sizing wires and overcurrent protection, and introduction to the National Electrical Code, installing wires and conduit, theory of series and parallel circuits and measuring voltage and current. This course includes a lab component.

DCB 1947-01 M 10/29-11/26 4:30-7:30pm KSU \$199

INTRODUCTION TO BLUEPRINT READING

Participants will learn to identify the essential details and interpret the dimensions and tolerances found on engineering drawings. Actual blueprints for hands-on study will be available. This hands-on program will enable participants to accurately and effectively use blueprints to obtain the information they need to do the jobs. Course is geared for machine operators, quality control inspectors, shop supervisors, metalworking manufacturing personnel, engineering managers, and other manufacturing persons interested in learning to read manufacturing prints or updating their knowledge in this area. Prerequisite: Basic Mathematics.

Instructor: R. Engle

DCB 1259-01 R 10/11-11/15 6:30-8:30pm KSU \$249

INDUSTRIAL TECHNOLOGY: MANUFACTURING TECHNOLOGY CERTIFICATE 36 credits

This certificate program prepares individuals to enter the manufacturing workforce by teaching basic skills needed in the use of lathes and milling machines, while also providing the educational background for those students who want to continue into a second year of study in Industrial Technology: Manufacturing or Industrial Design.

CERTIFIED PRODUCTION TECHNICIAN

Local manufacturers, and SUNY Ulster, have partnered together to create a pipeline of skilled workers to meet the hiring needs of manufacturing employers and to prepare local job seekers with the skills needed to get self-sufficient jobs in manufacturing. This program consists of four individual certificate modules: Safety Certificate, Manufacturing Processes and Production Certificate, Quality Practices and Measurement Certificate, and Maintenance Awareness Certificate. Approved by New York State Bureau of Veterans Education for payment of VA Education Benefits. Prerequisite: MAT 100 or permission of instructor. **Price includes fees.**

MFG 101 T/R 8/28-12/18 1-2:20pm SRC \$841

No class 11/22

DCB 1786-01 T/R 8/28-12/18 1-2:20pm SRC \$841

No class 11/22

Non-credit students will be required to do online assignments between classes. Class time above does not include assessments. Students will schedule assessments with proctor. Course price includes four assessments. Any additional assessments that students need will be \$65 each.

INTRO TO CNC PROGRAMMING - MILL & LATHE

This hybrid course covers the fundamentals of machining metals starting with manual mill and lathe and advancing towards a three axis mill and lathe. Using CNC Programming and an online CNC Learning System students will be introduced to the fundamentals of set-up and operation of mills and lathes (Haas Toolroom Mill and Lathe). A hands-on practical demonstration of skills learned is required. Textbook and online access to learning system included in course price.

Material needed: USB Memory Stick

Optional tools: 1" micrometer and Vernier caliper

DCB 2213-01 hybrid class \$1,299

Online self-paced

Mandatory Lab T 10/2-12/4 5:30-7:30pm

DCB 2213-02 hybrid class \$1,299

Online self-paced

Mandatory Lab M 10/1-12/17 5:30-7:30pm

No class 10/8 & 11/12

ADVANCED MANUFACTURING



ELECTROMECHANICAL TECHNICIAN CERTIFICATE SERIES

This program is intended for students with some manufacturing skills or applicable military skills and prepares graduates for entry-level positions in local manufacturing companies that utilize automated, computer controlled production systems.

See individual course schedules below.

Contact Barbara Reer at reerb@sunyulster.edu or 845-802-7171 to learn how you can tailor specific programs for your employees.

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MECHATRONICS

This course covers in depth GD&T, gear calculations, spring calculations, pulley calculations, and thread designations. Topics introduced are welding designations, cam design, electrical symbols, electrical calculations, machine design and precision measurement. **Price includes fees.**

MEC 101 T/R 8/28-12/18 3:30-4:50pm SRC \$596

No class 11/22

CAD 101 - AUTOCAD

Students are introduced to the AutoCAD drawing platform. AutoCAD commands are taught using the following drafting methods: Geometric Construction, Orthographic Projection, Sectioning and Isometric Views. Special emphasis is placed on dimensioning, white space layout, GUI customization, scaling, and line weight. After successful completion of this course, students will be proficient with the AutoCAD software and have an understanding of the fundamentals of drafting.

CAD 101 T 8/28-12/18 5-9:30pm SRC \$596

DCB 1600-01 T 8/28-12/18 5-9:30pm SRC \$596

SOLID MODELING I

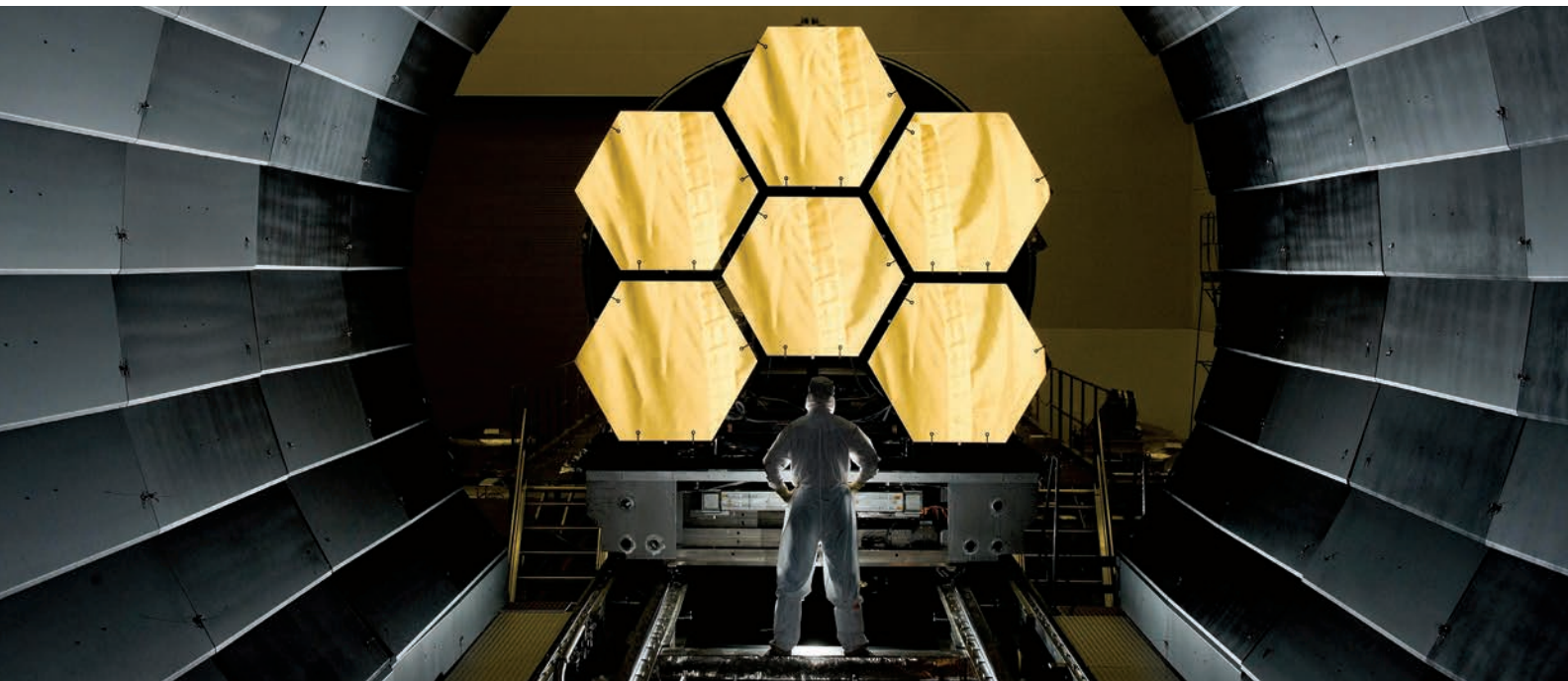
This class is an introduction to Solid Modeling using the Autodesk Inventor Professional software. Topics emphasized include: design intent solid modeling, white space layout design, dimensioning, GD&T, GUI customization, sheetmetal design and welding assembly. Students will create parts, assemblies, presentations and drawings throughout the term.

CAD 102 R 8/30-12/13 5-9:30pm SRC \$596

No class 11/22

DCB 2224-01 R 8/30-12/13 5-9:30pm SRC \$596

No class 11/22



M - MONDAY • T - TUESDAY • W - WEDNESDAY • R - THURSDAY • F - FRIDAY • S - SATURDAY • U - SUNDAY



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