Precision Machining and CNC Technology - AAS

West Burlington Campus, and select courses available at the Keokuk Campus

Program Information

he Precision Machining and CNC Technology program is designed to provide students with the skills necessary to enter the production environment as entry level computer numeric controls programmers or production technicians. The program provides broad theoretical and hands-on education for those seeking careers in the production field, emphasizing various levels of the production process. Each level builds upon the previous section, continuing the students' education and knowledge base of the production process. Students will learn skills in safety, 2D and 3D production design, machining, and quality control with an emphasis placed on emerging trends including 5-axis design and machining principles. The OSHA 10 General Industry card is awarded upon the successful completion of the MFG-212 course.

Intro to Machine Shop Certificate: This certificate would provide a basic concept to introductory skills & fundamentals of working in a machine shop manufacturing environment. Working with credit and noncredit students this could be a very good pathway of just getting into a manufacturing machine shop. Gen Eds MAT-702 & SOC-114 this semester for Diploma and AAS Degree. Gen Eds can be taken online.

Precision Machining Diploma: This diploma would provide the next skill set needed to advance in a machine shop manufacturing environment with the additional skills of Manual Machining, Introduction to CNC / Cam software, GD&T,3D Modeling, and Continuous Quality Management courses.

Please view the technical-standards for this course.

Instructor and Staff

Bradley Junker
Instructor - Advanced Manufacturing
(319) 208-5182
bjunker@scciowa.edu

West Burlington Campus, and select courses available at the Keokuk Campus

Program Requirements

Fall Semester I		Credit
CAD-101	Introduction to CAD	3
DRF-113	Fundamentals of Technical Drafting	3
MAT-702	Introduction to Math Applications	3
MFG-212	Basic Machine Theory	3
MFG-398	Introduction to Machine Shop	3
SOC-114	Conflict Resolution in the Workplace	3
Semester Total		18

Spring Semester I		Credit
MFG-142	Geometric Dimensioning Tolerancing	3
CAD-277	3-D Dimensional (3-D) Modeling I	3
EGT-116	Continuous Quality Management	3
MFG-206	Manufacturing Processes I	3
MFG-237	Introduction to Machine Trades	3
Semester Total		15

Fall Semester II		Credit
CAD-140	Parametric Solid Modeling	3
MFG-156	Introduction to CNC Machining	3
MFG-362	Machines Operations II	5.5
PHY-106	Survey of Physics	4
Semester Total		15.5

Spring Semester II		Credit
SPC-112	Public Speaking	3
MFG-303	Advanced CNC Programming	5.5
MFG-323	Mastercam Designs	4
Take 1 of 2 courses:		
ENG-105	Composition I	3
ENG-110	Writing for the Workplace	3
Semester Total		15.5

Program Total.....64