Computer Aided Design and Manufacturing Certificate

Program: Computer Aided Drafting
Program Code:
CN
Academic Area:
Science, Technology, Engineering and Mathematics
Type:
Certificate of Accomplishment
Campus:
Fall River
CIP Code:
15.1306

Program Statement

This certificate program provides students with the needed skills to become a professional computer-aided draftsperson, mechanical, or manufacturing technicians in the engineering industry. Students learn fundamental concepts of engineering drawing through advanced computer-aided design techniques and CAD/CAM. They will utilize and set up standard machine-shop equipment and operate and program CNC machinery. Students also understand the materials to be processed and technical drawing through the use of AutoCAD, SolidWorks, Inventor, and CamWorks.

Program Information

This program serves as a solid base for continuing on toward a degree with all courses transferring to BCC's Automation, Electro-Mechanical, and Mechanical Technology programs.

Students utilize typical industrial CNC machining centers, high-tech computer equipment, and the latest AutoDesk, SolidWorks, and/or CAM software.

Program Requirements

Course #	Title	Credits
CAD 111	Mechanical Design with Solidworks	3
CAD 211	Computer Aided Manufacturing	3
EGR 111	Fundamentals of Manual Machining	4
EGR 112	Automated Machining	3
EGR 172	Material Science	4
	CAD 101, CAD 112 or CAD 172	6

Recommended Course Sequence - Semester 1

Course #	Title	Credits
CAD 111	Mechanical Design with Solidworks	3
EGR 111	Fundamentals of Manual Machining	4
EGR 172	Material Science	4
	CAD 101 or CAD 172	3

Recommended Course Sequence - Semester 2

Course #	Title	Credits
CAD 211	Computer Aided Manufacturing	3
EGR 112	Automated Machining	3
	CAD 101, CAD 112 or CAD 172	3
	Total credits:	**23**

Category Descriptions

CAD 101, CAD 112 or CAD 172

Credits: 6

Choose two of the following:

Course #	Title	Credits
CAD 101	Computer Aided Drafting	3
CAD 112	Advanced Mechanical Design with Solidworks	3
CAD 172	Mechanical Design Using Inventor	3