



# CNC Machining and Programming Certificate

**Program:** Computer Aided Drafting

**Program Code:**

CM

**Academic Area:**

Science, Technology, Engineering and Mathematics

**Type:**

Certificate of Recognition

**Campus:**

Fall River

**CIP Code:**

48.0510

## Program Goals Statement

Students learn to use standard machine-shop equipment and operate and program CNC machinery to become manufacturing technicians. Students also understand the materials to be processed and technical drawing through the use of AutoCAD.

## 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.
- This program utilizes BCC's NSF-funded Computer-Integrated Manufacturing (CIM) Laboratory facility, utilizing typical industrial CNC machining centers.

## Program Requirements

Course #	Title	Credits
EGR 172	Material Science	4
	CAD 101, CAD 111, CAD 112 or CAD 172	3
	CAD 211, EGR 111 or EGR 112	6-7

## Recommended Course Sequence - Semester 1

Course #	Title	Credits
	CAD 101, CAD 111, CAD 112 or CAD 172	3
	EGR 111, EGR 112 or EGR 172	3-4



## Recommended Course Sequence - Semester 2

Course #	Title	Credits
	CAD 211, EGR 111, EGR 112 or EGR 172	6-8
	<b>Total credits:</b>	<b>13-14</b>

### Category Descriptions

#### CAD 101, CAD 111, CAD 112 or CAD 172

Credits: 3

Choose one of the following:

Course #	Title	Credits
CAD 101	Computer Aided Drafting	3
CAD 111	Mechanical Design with Solidworks	3
CAD 112	Advanced Mechanical Design with Solidworks	3
CAD 172	Mechanical Design Using Inventor	3

#### CAD 211, EGR 111 or EGR 112

Credits: 6-7

Choose two of the following:

Course #	Title	Credits
CAD 211	Computer Aided Manufacturing	3
EGR 111	Fundamentals of Manual Machining	4
EGR 112	Automated Machining	3