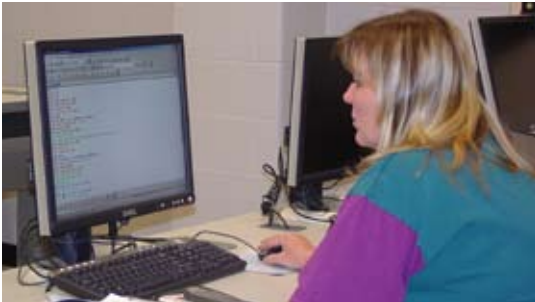




CFCC has 25 manual machines, offering students the opportunity to build foundational skills in metal machining.



Students have the opportunity to enhance their computer skills in our 17-seat computer lab



Proper set up of the machines is critical in obtaining a quality work piece.

For more information about the Computer Integrated Machining, please contact one of the following instructors

**Randy Johnson**      **Ben Bowie**  
 (910) 362-7169      (910) 362-7157  
 rjohnson@cfcc.edu      bbowie@cfcc.edu

**Eddie Sholar**  
 (910) 362-7321  
 esholar@cfcc.edu



*Cape Fear*  
 COMMUNITY COLLEGE

NORTH CAMPUS  
 4500 BLUE CLAY ROAD  
 CASTLE HAYNE, NC 28429  
 910-362-7000  
 www.cfcc.edu

# COMPUTER INTEGRATED MACHINING

**Two-year Associate in Applied Science**  
**One year certificate**



**Cape Fear**  
**Community College**

**North Campus**  
**Castle Hayne, NC**  
**www.cfcc.edu**

# COMPUTER INTEGRATED MACHINING

ASSOCIATE IN APPLIED SCIENCE or CERTIFICATE PROGRAM

The Computer Integrated Machining curriculum prepares students to work in modern manufacturing facilities. Students of this program learn to manufacture mechanical components using a variety of modern metalworking machines. These machines range from basic, manually operated band saws to state of the art computer numerical control (CNC) machine tools. In addition, students learn to read and understand mechanical blueprints, design and manufacture work-holding tools and use computer aided manufacturing software to program CNC milling and turning machines.

Course work includes blueprint reading, basic and advanced machining, tool making, computer aided manufacturing, CNC machine tool programming and operation, math, English and communications.

## FACILITIES

The Computer Integrated Machining curriculum is taught in CFCC's Applied Technologies building on the North Campus. Opened in the Fall of 2005, this state of the art facility is equipped with over 30 modern machine tools, seventeen computer work-stations and a full compliment of precision measuring and inspection tools.

## EMPLOYMENT OPPORTUNITIES

Successful graduates of the Computer Integrated Machining curriculum find employment in a wide range of manufacturing related facilities. Average starting salaries for the Wilmington area range from \$8 to \$15 per hour or about \$17,000 to \$31,000 per year. Graduates of our program have found employment at Fenner Drives, Interroll, Logic Hydraulic Controls, General Electric and a variety of manufacturing facilities in and around the Wilmington area.



During our CNC classes, students learn to set up, program and operate several computer-controlled machines to manufacture a variety of mechanical components.

## REQUIRED CLASSES

### ASSOCIATES IN APPLIED SCIENCE

#### I. General Education Courses Semester Credit Hours

ENG 111	Expository Writing	3
COM 110	Intro to Communication	3
MAT 120	Geometry and Trigonometry	3
	Humanities/Fine Arts Elective	3
	Social/Behavioral Science Elective	3

#### II Major Courses

MAC 111	Machining Technology I	6
MAC 112	Machining Technology II	6
MAC 113	Machining Technology III	6
MAC 121	Intro to CNC	2
MAC 122	CNC Turning	2
MAC 124	CNC Milling	2
MAC 131	Blueprint Reading: MACH I	2
MAC 132	Blueprint Reading: MACH II	2
MAC 152	Advanced Machining Calculation	2
MAC 222	Advanced CNC Turning	2
MAC 224	Advanced CNC Milling	2
MAC 233	Applications in CNC Machining	6
MAC 241	Jigs and Fixtures I	4
MAC 242	Jigs and Fixtures II	4
MAC 231	Mastercam I	3
MAC 232	Mastercam II	3

**Total Credits 69**

#### Certificate Program

MAC 111	Machining Technology I	6
MAC 112	Machining Technology II	6
MAC 121	Intro to CNC	2
MAC 122	CNC Turning	2
MAC 124	CNC Milling	2

**Total Credits 18**

Contact your advisor for current information

## 2010-2011 SEQUENCE OF CLASSES

### ASSOCIATES IN APPLIED SCIENCE

FALL SEMESTER I	FALL SEMESTER II
COM 110	MAC 113
MAC 111	MAC 224
MAC 121	MAC 241
MAC 131	MEC 232
MAT 120	

SPRING SEMESTER I	SPRING SEMESTER II
ENG 111	MAC 222
MAC 112	MAC 233
MAC 124	MAC 242
MAC 132	Humanities/Fine Arts
Social/Behav Science Elect.	Elect.

### SUMMER SEMESTER I

MAC 122
MAC 152
MEC 231

### CNC MACHINE TOOL OPERATOR (CERTIFICATE PROGRAM)

#### FALL SEMESTER I

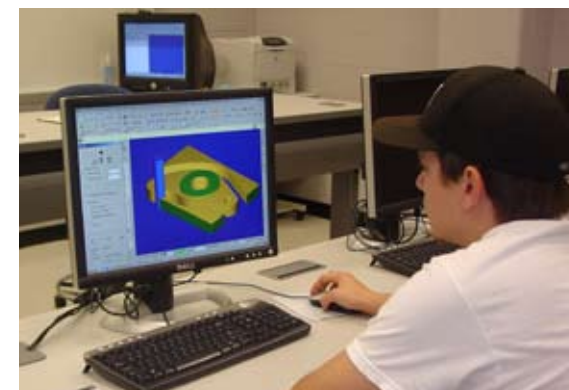
MAC 111
MAC 121

#### SPRING SEMESTER I

MAC 112
MAC 124

#### SUMMER SEMESTER I

MAC 122
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Students have the opportunity to become proficient in computer aided manufacturing during the two Mastercam programming classes.