

## INTRODUCTION TO PROGRAMMABLE LOGIC CONTROLLERS

This is a two course program.

### 1. INDUSTRIAL MOTOR CONTROLS - 21 hours

The process of motor control is integral to the flow of the product from raw material to finished product. This course will familiarize the student with the following: principles of solid-state control devices and their components; AC and DC motor controls; motor drives; control circuits; motor starters and pilot devices.

**CRN: TBA**

**Start Date: September 3, 2009 - October 15, 2009**

**Time: Thursdays, 6:30 p.m. - 9:30 p.m.**

**OR**

**CRN: TBA**

**Start Date: September 6, 2008 - October 18, 2008**

**Time: Saturdays, 9:00 a.m. - 12:00 p.m.**

**Fee: \$295.00**

**Instructor: Ernie Canterbury**

### 2. PROGRAMMABLE LOGIC CONTROLLERS - 30 hours

#### Prerequisite - Industrial Motor Controls

The incorporation of the PLC is one of the fastest growing sectors in the field of electronics as the PLC replaces electro-mechanical system, such as electromagnetic relays and programmable logic devices (PLD's). This course provides you with an overview of the PLC, its hardware, numbering systems and codes, logic fundamentals, programming timers and counters, program control and data manipulation instructions.

**CRN: TBA**

**Start Date: October 22, 2009 - January 31, 2010**

**Time: Thursdays, 6:30 p.m. - 9:30 p.m.**

**OR**

**CRN: TBA**

**Start Date: October 31, 2009 - January 16, 2010**

**Time: Saturdays, 9:00 a.m. - 12:00 p.m.**

**Fee: \$420.00**

**Instructor: Ernie Canterbury**

**Contact: Maura Gardiner (860) 253-3032/mgardiner@acc.commnet.edu**

### ROBOTICS - 30 hours

This course will give the student a brief history of robotics applications in the manufacturing process and a vision of future applications. Students will be introduced to the hardware, software and programming necessary to specific robotics applications. Students will also examine electromechanical systems, sensing systems, programming and industrial applications

**CRN: TBA**

**Start Date: September 8, 2009 - November 10, 2009**

**Time: Tuesdays, 6:30 p.m. - 9:30 p.m.**

**Fee: \$420.00**

**Instructor: Ernie Canterbury**

### **MICROPROCESSOR/MICROCONTROLLER - 30 hours**

This course is designed to provide an overview of the microprocessor and microcontroller by reviewing the fundamentals of 8085A architecture, software and interface applications.

**CRN: TBA**

**Start Date: September 9, 2009 - November 11, 2009**

**Time: Wednesdays, 6:30 p.m. - 9:30 p.m.**

**Fee: \$420.00**

**Instructor: Ernie Canterbury**

### **INTRODUCTION TO SOLIDWORKS - 30 hours**

This course will introduce you to the vocabulary and basic functionality of the software. The course will cover such topics as: assembly basics, tool box basics, drawing basics, revolve and sweep features and loft features. You will learn to utilize these techniques by completing exercises and working on projects.

**CRN: TBA**

**Start Date: September 9, 2009 - November 11, 2009**

**Time: Wednesdays, 6:30 p.m. - 9:30 p.m.**

**Fee: \$500.00**

**Instructor: Staff**

**Contact: Maura Gardiner (860) 253-3032/mgardiner@acc.commnet.edu**

### **INTRODUCTION TO AUTOCAD**

This is a two-course program

#### **1. CAD 2D MECHANICAL AUTOCAD - 30 hours**

This course covers the techniques of generating technical drawing with computers utilizing AutoCAD software in an IBM-PC environment. The student will be introduced to AutoCAD for 2D geometric construction and technical drafting conventions in a mechanical environment. This will include creating and editing drawings, applying text, dimensioning, sectioning, and plotting.

**CRN: TBA**

**Start Date: September 17, 2009 - November 19, 2009**

**Time: Thursday 6:00 p.m. 9:00 p.m.**

**Fee: \$375.00**

**Instructor: Staff**

#### **2. AUTOCAD LEVEL II**

##### **Prerequisite CAD 2D Mechanical AutoCAD - 30 hours**

Building upon skills acquired in CAD 2D Mechanical AutoCAD, students will produce more complicated multiview drawings using AutoCAD software. This course will emphasize creation of professional drawings typical of machine production prints. Students will create symbol libraries, utilize internet resources for technical drawings, and will be introduced to 3D construction

**CRN: TBA**

**Start Date: January 7, 2010 - March 11, 2010**

**Time: Saturday 1:00 p.m. - 4:00 p.m.**

**Fee: \$375.00**

**Instructor: Staff**

**Contact: Maura Gardiner (860) 253-3032/mgardiner@acc.commnet.edu**

## **CNC CERTIFICATE**

If you need to increase your job marketability or you're looking for a new position in your current company, this may be the answer.

*Requires a background of mathematics and blueprint reading*

*This is a three course program.*

### **1. INTRODUCTION TO CNC PROGRAMMING - 18 hours**

Topics include Cartesian coordinates, basic codes, elementary manual programming, word address systems and safety.

*CRN: TBA*

*Start Date: September 26, 2009 - October 31, 2009*

*Time: Saturday 9:00 a.m. - 12:00 p.m.*

*Fee: \$250.00*

*Instructor: Stan Kochanek*

### **2. INTRODUCTION TO CNC VMC - 18 hours**

**Requires Introduction to CNC Programming or the Equivalent**

Learn the programming, set-up and operation and editing of a 3-axis CNC vertical milling center with Fanuc control.

*CRN: TBA*

*Start Date: November 7, 2009 - December 19, 2009*

*Time: Saturday 9:00 a.m. - 12:00 p.m.*

*Fee: \$250.00*

*Instructor: Stan Kochanek*

### **3. INTRODUCTION TO CNC LATHE - 18 hours**

**Requires Introduction to CNC Programming or the Equivalent**

Learn programming, set-up and operation of a 2-axis CNC slant-bed lathe with Fanuc control.

*CRN: TBA*

*Start Date: January 9, 2010 - February 13, 2010*

*Time: Saturday 9:00 a.m. - 12:00 p.m.*

*Fee: \$250.00*

*Instructor: Stan Kochanek*



*Contact: Maura Gardiner (860) 253-3032/mgardiner@acc.commnet.edu*

## **Welding, Ornamental Iron Working & Fabrication**

**Course Description:** Introduction to Arc welding, welding safety, equipment safety and general knowledge, ornamental iron and fabrication. Each student will complete a project utilizing the knowledge and skills acquired in the class. Classes cover Gas, Arc, MIG, TIG welding and plasma cutting *Class size is limited to 10 students.*

On completion of the class students will be able to:

- Recognize safety hazards in the shop environment
- Perform basic welds with MIG, TIG and Arc welding processes
- Design and fabricate ornamental pieces

**CRN:** TBA

**Course Length:** 2x a week for 12 weeks

**Dates:** September 1, 2009 - November 17, 2009

**Times:** Tuesdays & Thursdays from 6:00 p.m. - 8:00 p.m.

OR

**CRN:** TBA

**Course Length:** 1x a week for 8 weeks

**Dates:** November 7, 2009 - January 16, 2010

**Times:** Saturdays from 8:00 a.m. - 2:30 p.m.

**Instructor:** Steve Goodrow

**Cost:** \$550.00 - includes materials

**Contact:** Maura Gardiner (860) 253-3032/mgardiner@acc.commnet.edu