

## MANUFACTURING

### MANUFACTURING TERMINOLOGY

10/16 - 12/15, 6:00 PM-9:45 PM, T/TH, \$350

This course provides specialized instruction in basic and advanced manufacturing terminology. Topics include; design, automation, material removal, material forming, assembly, inspection and testing, and communications and control. Call Claudia Burgin, 205.929.3519 to register.

## COMPUTER AIDED DESIGN

### INTRODUCTION TO AutoCAD® 2008

9/9 & 11, 6:00 PM-9:35 PM, T/TH, \$225

This is a pre-course for the individual who has never used AutoCAD® before. This seminar is designed to orient and familiarize the CAD novice to the world of Autodesk Computer Aided Drafting and Design. This learning experience covers the most basic AutoCAD® concepts. Students learn to create a simple drawing. Prerequisite: Knowledge of Windows operating system and drafting experience. Call Claudia Burgin, 205.929.3519 to register.

### PLOTTING AND PUBLISHING SHEET SETS, 9/16 & 18, 6:00 AM-9:35 PM, T/W, \$225

This course will assist you in the development standards, pc3 file creation, plotting layouts, creating page setups, the sheet set manager for publishing, creating color and named tables, publishing to the web, and procedures which will facilitate the output of your designs to the printed media. Prerequisite: Familiar with AutoCAD® fundamentals including layers, blocks, text, and dimensions. Call Claudia Burgin, 205.929.3519 to register.

### CUSTOMIZING AutoCAD®

10/14, 16, 21, 23 & 28  
5:30 PM - 9:55 PM, T/TH, \$625

This course is designed for the AutoCAD® user who requires comprehensive training on customizing AutoCAD® tool palettes and customized user interface file types. Customization can quickly increase productivity by placing the most commonly used commands and objects in a single place. Hands-on exercises throughout the course demonstrate the customization techniques. Call Claudia Burgin, 205.929.3519 to register.

### AUTOCAD® 3D MODELING

11/4, 6, 11, 13 & 18

5:30 PM - 9:55 PM, T/TH, \$625

This course offers a comprehensive solution to those seeking to enhance their AutoCAD® 3D skills by incorporating 3D modeling techniques. Designed for people new to 3D or the accomplished 2-D AutoCAD® user who would like to acquire 3-D skills, this course guides the professional user from simple 3D primitive creation to sophisticated solids with surfaces for composite solids creation. Prerequisite: Knowledge of Windows and drafting experience.

## GEOGRAPHIC INFORMATION SYSTEMS (GIS)

### INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS)

8/25 - 12/15, 7:00 PM - 8:55 PM, M/W, \$450

This course introduces students to the concepts, techniques, and tools of Geographic Information Systems (GIS), which is a computer-based data processing tool used to manage and analyze spatial information. Topics covered include data acquisition, management, manipulation, and analysis, and cartographic output for applications of GIS in scientific and technological operations such as environmental assessment, analysis or natural hazards, site analysis for business and industry, resource management, and land-use planning. Through hands-on exercises with ArcGIS and/or projects with other related software packages, students will acquire basic skills in GIS. Call Claudia Burgin, 205.929.3519 to register.

### GIS APPLICATIONS AND PROGRAMMING

5/23 - 7/25, 6:00 PM-8:55 PM, FRIDAYS, \$450

This course introduces students to GIS programming by utilizing Visual Basic programming skills. Students will utilize Arc Objects and System Query Language (SQL) to design and/or modify GIS tools and commands, create new GIS tools, automate GIS operations, and integrate Arc GIS software with other software applications. Call Claudia Burgin, 205.929.3519 to register.

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## HVAC

### HVAC REVIEW FOR CONTRACTORS EXAM

8/23 -10/11, 9:00 PM -3:25 PM, Sat., \$975

This course prepares students to take the State Certification Examination. Emphasis is placed on all pertinent codes, piping procedures, duct design, load calculation, psychometrics, installation procedures, and air distribution. Upon completion, students should be prepared to take the contractors exam. Call Claudia Burgin, 205.929.3519 to register.

Telephone Registration  
(205) 929-3519

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# FALL SCHEDULE

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(205) 929-3519 or (205) 929-3521

# CORPORATE SERVICES

## CLASS SCHEDULE\*

PRICES INCLUDE MATERIALS AND SUPPLIES

\*Business and Industry noncredit classes.

### INDUSTRIAL SYSTEMS MAINTENANCE

#### PREVENTIVE MAINTENANCE

**8/26 -10/14, 6:00 PM - 9:55 PM, T/TH, \$450**

This course focuses on the concepts and applications of preventive maintenance. Topics include the introduction of alignment equipment, job safety, tool safety, preventive maintenance concepts, procedures, tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply proper preventive maintenance and explain predictive maintenance concepts. Call Claudia Burgin, 205.929.3519 to register.

#### PRINCIPLES OF INDUSTRIAL MECHANICS

**8/25 -10/11, 5:00 PM-9:35PM, M/W, \$450**

This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment. Topics include the basic application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion, students will be able to perform basic troubleshooting, repair and maintenance functions on industrial production equipment. Call Claudia Burgin, 205.929.3519 to register.

#### PRODUCTION EQUIPMENT

##### LAYOUT AND INSTALLATIONS

**10/15-12/17, 5:00 PM-9:35 PM, M/W, \$450**

This course provides instruction in the layout and installation of production equipment and the use of rigging and installation tools. Topics include the use of wire rope, chain and metal-mesh, and fiber rope and webbing slings, industrial hoists and cranes, crane operation, scaffolds and ladders, machine anchoring for vibration control, moving and setting new equipment, leveling and alignment, preparing equipment for test run, test run guidelines, and safety precautions. Upon course completion, students will be able to install production equipment. Call Claudia Burgin, 205.929.3519 to register.

#### PROGRAMMABLE LOGIC CONTROLLERS

**8/26 -10/14, 6:00 PM-9:55 PM, T/TH, \$450**

This course emphasizes PLC programming, connections, installations, and start-up procedures. Topics include introductory programming, PLC functions and terminology, processor unit and power supply, introductory numbering systems, relay/programming logic, field wiring/installation, and start-up. Upon course completion, students will be able to identify inputs and outputs, list capabilities of system, monitor system operation, recognize ROM and RAM functions, and recognize binary and digital number systems. Call Claudia Burgin, 205.929.3519 to register.

#### ADVANCED PROGRAMMABLE LOGIC CONTROLLERS

**10/16-12/16, 6:00 PM-9:55 PM, T/TH, \$450**

This course focuses on advanced PLCs. Topics include operations, programming procedures, fault isolation procedures, and methods of entering, executing, debugging, and changing programs. Upon completion, students should be able to apply principles of operations and programming of advanced PLCs. Call Claudia Burgin, 205.929.3519 to register.

### ELECTRICAL

#### COMMERCIAL/INDUSTRIAL WIRING

**10/15-12/17, 5:30 PM-9:55 PM, M/W, \$450**

This course focuses on principles and applications of commercial and industrial wiring. Topics include, electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles. Call Claudia Burgin, 205.929.3519 to register.

#### ALABAMA ELECTRICAL

##### CONTRACTORS EXAM PREPARATION

**9/4-12/8, 5:45 PM-9:30 PM, M/W, \$760**

This course introduces the students to the National Electrical Code and text and teaches the student how to find needed information within the manual. Emphasis is placed on locating and interpreting needed information within the NEC code manual and the formulas required for calculations. Upon completion, students should be able to locate, with the NEC code requirements for a specific electrical installation. Call Claudia Burgin, 205.929.3519 to register.

### COMMERCIAL DRIVER'S LICENSE (CDL)

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**6 WEEKS, M-TH, CLASSES NOW FORMING, \$1,075**

This course focuses on students obtaining a Class B CDL. Department of Transportation regulations require truck driving students to undergo a drug screening and obtain a D.O.T. physical. Each student must obtain a Commercial Driver's License Permit and have 20/40 vision with or without corrective lenses. They must also be fully capable of reading, writing, speaking and understanding the English language. Call Claudia Burgin, 205.929.3519 to register.

### MACHINE TOOL

#### MACHINING TECHNOLOGY I

**9/25 - 12/17, 5:30 PM-9:55 PM, M/W, \$450**

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, saws, milling machines, grinding machines, and layout instruments. Upon completion, students will be able to perform the basic operations of measuring, layout, grinding, drilling, sawing, turning, and milling. This course is aligned with NIMS certification standards. Call Claudia Burgin, 205.929.3519 to register.

#### MACHINING TECHNOLOGY II

**9/25 - 12/17, 5:30 PM-9:55 PM, M/W, \$450**

This course provides additional instruction and practice in the use of measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection of work holding devices, speeds, feeds, cutting tools and coolants. Upon completion, students should be able to perform intermediate level procedures of precision grinding, measuring, layout, drilling, sawing, turning, and milling. This course is aligned with NIMS certification standards. Call Claudia Burgin, 205.929.3519 to register.

#### INTRODUCTION TO COMPUTER NUMERICAL CONTROL

**9/27 - 12/10, 6:00 PM-8:55 PM,**

**WEDNESDAY, \$450**

This course introduces the concepts and capabilities of computer numeric control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine

protection, data input, program preparation, and program storage. This course is aligned with NIMS certification standards. Call Claudia Burgin, 205.929.3519 to register.

### WELDING

#### INDUSTRIAL MAINTENANCE

##### WELDING AND CUTTING

**8/21-12/17, 5:30 PM-7:55 PM, M-F, \$450**

This course provides specialized instruction in aluminum welding. Emphasis is placed on meeting employee and industry needs. Call Claudia Burgin, 205.929.3519 to register.

#### WELDING CERTIFICATION WORKSHOP

**EACH SATURDAY IN SEPTEMBER**

**9:00 AM - 3:30 PM, SATURDAY, \$150**

This Saturday workshop is six (6) hours long and provides welding safety instruction, practice time, welding equipment (not personal equipment), consumable supplies, test plate (student will prepare), one x-ray, results of test, and certification if test results comply with AWS D1.1 Code. Additional x-rays for certification in more than one position will be \$60. Call Claudia Burgin, 205.929.3519 to register.

### AUTOMATED MANUFACTURING

#### INTRODUCTORY ROBOTICS

**9/25 - 12/11, 9:00AM-12:00PM, M/W, \$350**

Topics include robot programming, sensors, data acquisition, data processing, pattern recognition, data application, and actuators. Upon completion of this course a student will be able to program and operate simple robotics. Call Claudia Burgin, 205.929.3519 to register.

#### PROCESS CONTROL

**10/16 - 12/15, 6:00 PM-9:45 PM, T/TH, \$350**

This course provides specialized instruction in process control and how it is used in automated manufacturing. The goal of this course is to read a set of digital and analog inputs, apply a set of logic statements, and generate a set of analog and digital outputs. Call Claudia Burgin, 205.929.3519 to register.