Course Title: BASIC MACHINE SHOP PRACTICES

Course Description: This course provides a general overview of all types of Machine Tools including: Hand Tools, Mills, Lathes, Grinders, Routers, Saws, and Drills. Students will complete a project using layout tools, saw, files and drill press. Student will be introduced to CNC machines.

Prerequisite: Methods of Measurement, Math, and Safety in a Machine Shop (Course 1) AND Silver level – Work Keys assessment

Textbook: Precision Machining Technology, 1st Edition
Peter J. Hoffman - Berks Career and Technology Center West, Leesport, Pennsylvania
Eric S. Hopewell - Berks Career and Technology Center West, Leesport, Pennsylvania
Brian Janes - Bowling Green Technical College, Bowling Green, Kentucky
Kent M. Sharp, Jr. - Radford High School, Radford, Virginia
608 Pages Hardcover ©2012 Published by Cengage Learning. (Endorsed by the National Institute of Metalworking Standards)

The syllabus is an outline of the course material does not constitute a contract, and is subject to change with adequate notice.

Course Objectives/Learning Outcomes

A. Safety Refresher for Machine Tools (3.5 hours)
   1. Shop Safety
   2. Machine Maintenance-importance
   3. Shop Cleanness

B. Use of Drill Press and its Maintenance (3.5 hours)

C. Use of Pedestal Grinder and its Maintenance (3.5 hours)
   1. Grinding of Drills and Lathe tools

D. Proper use of Inspection Tools and their maintenance (3.5 hours)

E. Proper use of Hand tools (3.5 hours)
   1. Hammers, files, punches, layout tools

F. Student Project - (7 hours)
   Manufacture a DRILL POINT GAGE with only layout tools, band saw, metal files, and drill press
G. Proper use of CNC Machine Tools (Introduction for third class) (3.5 hours)

H. Field Trip to Local Machine Shops (2 hours)

Course Topic Outline:

Day One: Safety, Machine Maintenance, Shop Cleanliness 3.5 hours
Day Two: Use of Drill Press 3.5 hours
Day Three: Use of Grinder 3.5 hours
Day Four: Use of Inspection Tools 3.5 hours
Day Five: Use of Hand Tool 3.5 hours
Day Six: Student Project 3.5 hours
Day Seven: Student Project 3.5 hours
Day Eight: Introduction to CNC Machine Tools 3.5 hours
Day Nine: Field Trip to area businesses 2.0 hours

Total 30.0 hours

Course Requirements, Policies and Procedures

- Enrollment Minimum/Maximum 8/10
- Program Duration 30 hours
- Time of Class Two Cohorts possible
  - T W H 1:00 pm – 4:30 pm
  - T W H 5:30 pm – 9:00 pm
- Class Location Mungin Center Varnville, SC
- Attendance No unexcused absences
- Class Dates July 10 – July 27
- Cost $455/ includes Work Keys Testing

ADA STATEMENT
The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.