Course Title: INTRODUCTION TO CNC MACHINING

Course Description: This course introduces CNC machining. The student will use safe practices operating the CNC machines. The student will learn basic CNC programming. The student will be able to identify parameters for material and use basic setup techniques for machining projects. The student will complete a project on a CNC lathe and a CNC mill.

Prerequisite: Basic Machine Shop Practices (Course 2) 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 in the CNC environment (3.5 hours)

B. CNC Machine Tools compared to Manual Machine tools (3.5 hours)
   1. History of CNC Machines
   2. Repeatability and Speed is the Key to CNC

C. Programming (7 hours)
   1. Manual Programming
   2. CAD/CAM Programming

D. CNC Lathe (8 hours)
   1. Uses
   2. Setups
   3. Tooling
   4. CNC Lathe Project

E. CNC Mill (8 hours)
   1. Uses
2. Setups
3. Tooling
4. CNC Mill Project

Course Topic Outline:

Day One: Safety in CNC Environment 3.5 hours
Day Two: CNC Compared to Manual 3.5 hours
Day Three: CNC Programming 3.5 hours
Day Four: CNC Programming 3.5 hours
Day Five: CNC Lathe 3.5 hours
Day Six: CNC Lathe 3.5 hours
Day Seven: CNC Lathe 1 hour; CNC Mill 2.5 hours 3.5 hours
Day Eight: CNC Mill 3.5 hours
Day Nine: CNC Mill 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 August 14 – August 23
- Cost $425

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.