

# Beaufort County Community College

## Mechanical Engineering Technology Technical Standards

### **Criteria: Critical thinking and problem-solving Standard:**

- A) Ability to measure, calculate, reason, analyze, integrate and synthesize information.
  - 1) Example: Able to read and understand engineering/technical drawings and schematics.
  - 2) Example: Apply engineering mathematical skills to solve problems.
  - 3) Example: Able to use the scientific method during problem solving.
  - 4) Example: Demonstrate knowledge in related computations

### **Criteria: Communication Standard:**

- A) Appropriate interpersonal interaction with other students, faculty, staff, customers, facility owners, and other technicians.
  - 1) Example: Demonstrate knowledge and understanding of engineering drawings.
  - 2) Example: Ability to translate geometric tolerances and symbols as they relate to quality and inspection.
- B) Effective communication with others, written and verbally.
  - 1) Example: Communicate with oral and written documents in the machining processes as they relate to part drawings.
  - 2) Example: Communicate with team to troubleshoot machine and programming issues.

### **Criteria: Motor Skills Standard:**

- A) Sufficient motor function to set-up and run manual and CNC machines.
  - 1) Example: Perform basic competencies related to machining of various parts on manual and CNC machines.
- B) Sufficient physical endurance to work on cement floors for extended periods of time with minimal travel in the work area.
  - 1) Example: Participate completely in lab activities.
  - 2) Example: Demonstrate the ability to perform bench related work activities.

### **Criteria: Professional Conduct Standard:**

- A) Function effectively and efficiently during demanding seasonal workload periods.
  - 1) Example: Maintain an understanding and effective relationships with customers, colleagues, faculty, staff and other professionals.
- B) Incorporate professional standards of practice into all activities.
  - 1) Example: Work effectively with a team in an academic or live project setting.
  - 2) Example: Refrain from using improper grammar, profane or inappropriate communications.

- 3) Example: Respond appropriately to constructive feedback provided by fellow students, faculty, staff, and customers.
- C) Demonstrate integrity and accountability during field work and academic setting.
  - 1) Example: Complete all assignments in a timely manner.
  - 2) Example: Be on time to class and have good attendance.
- D) Present self in a professional manner during field projects and academic settings.
  - 1) Example: Wear appropriate clothing that is not distracting or offensive when in the learning environment or that may cause an unsafe environment.
- E) Utilize computers correctly, effectively and professionally to acquire information and to communicate with others.
  - 1) Example: Utilize the internet to collect current information from appropriate resources to use during programming and set-up of CNC machines.

**Criteria: Sensory Standard:**

- A) Hearing sufficient to assess equipment needs.
  - 1) Example: Hear and recognize unusual equipment noise and take appropriate action to resolve any safety hazard.
- B) Vision sufficient to operate equipment in a safe/professional manner.
  - 1) Example: Accurately interpret non-verbal communications when working in a manufacturing environment.
- C) Knowledge of industrial safety procedures.
  - 1) Example: Read and understand Material Safety Data Sheets (SDS) information related to clean-up and reporting chemical spills and personal safety concerns.

This document is intended to serve as a guide regarding the physical, emotional, intellectual and psychosocial expectations placed on a student. This document cannot include every conceivable action, task, ability or behavior that may be expected of a student. Meeting these technical standards does not guarantee a student's eligibility for any licensure, certification exam, or successful completion of a degree program.