

## **TECHNICAL STANDARDS AND ESSENTIAL FUNCTIONS FAME Advanced Manufacturing Technician (AMT) Program**

### Introduction

This document introduces the nonacademic standards, skills, and performance requirements expected of every student in the FAME program. It is essential for all students entering the program to understand that these requirements are necessary for the satisfactory completion of all aspects of the curriculum and development of professional attributes for graduation. Reading these standards carefully along with a realistic assessment of your own personality interests, abilities, strengths, and weaknesses will ensure that you choose a program and career path that is a good fit for you.

While graduates of the FAME AMT program are most commonly hired by their sponsoring employers immediately after graduation into manufacturing technician or other jobs with similar requirements, graduates who are seeking employment in the free market should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians. A course of study that prepares the students to use basic engineering principles and technical skills in developing and testing automated, servo-mechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures. Graduates should be qualified for employment in industrial maintenance and manufacturing including assembly, testing, startup, troubleshooting, repair, process improvement, and control systems, and should qualify to sit for Packaging Machinery Manufacturers Institute (PMMI) mechatronics or similar industry examinations.

It will be both important and helpful to know what the overall goal of the FAME AMT program is to better understand and to put into context the information below. In addition to producing well prepared technicians who are well prepared for jobs, the FAME AMT program has a further goal to graduate global-best, entry level technicians. Because of this best-in-the-world target the FAME AMT program has standards, requirements, and practices that exceed those of other programs. On the one hand, it's an exceptional outcome for graduates both in terms of preparation and in pride in being part of and completing such a program. On the other hand, students will need to work very hard and be committed to success to master necessary program components.

### Communication

- Communicate effectively and professionally with work colleagues and those external to the company in face-to-face verbal and written communications.
- Correctly read and interpret technical and non-technical procedures, processes, and job-related written material, both in text and online forms.
- Document accurately technical, operational, and process information in various formats, both written and online.
- Write technical and non-technical processes and procedures to facilitate work operations.

### Motor Coordination

- Move with a safety priority heavy objects using appropriate techniques and, when necessary, machines for such work.
- Lift, manipulate, or move up to 50 lbs. several times throughout a workday.
- Safely and accurately perform skilled work across the electrical, fluid power, mechanical, and fabrication spectrums.
- Safely and accurately use a variety of equipment and tools across the electrical, fluid power, mechanical, and fabrication spectrums.

## Mobility

- Independently stand and walk up to 12 or more hours per day
- Work continuously up to 5 hours at a time
- Ambulate and work in a variety of environments including small spaces and low spaces.

## Sensory

- Gather information from co-workers, contractors, and others to perform a wide variety of technical tasks, including machine and system assessment, troubleshooting, performance data, and more.
- Discern between normal and abnormal machine, system, and process conditions.
- Evaluate information on monitors and other indicators and operate equipment under variable lighting situations.
- Adequately perceive depth in order to move and position equipment and tools.
- Demonstrate tactile, gross, and fine motor skills sufficient to provide safe, effective, and correct work in a variety of situations.
- Accurately interpret alarms, normal and abnormal sounds, and sounds such as, equipment, monitors, fire alarms, call bells.

## Intellectual

- Use data and short and long-term memory to critically and analytically plan, think, and problem solve.
- Apply critical and analytical thinking techniques to problem solve and adapt to unexpected situation changes.
- Analyze data to determine appropriate work and interventions across a wide variety of technical and operational situations.
- Safely perform planned maintenance, countermeasures, and repairs to a wide variety of equipment and systems.
- Organize and prioritize multiple tasks.
- Apply critical and analytical judgment and work management at all times.

## Social

- Work and effectively collaborate with individuals in consistently positive and constructive ways.
- Work effectively in teams and collaborate with other professionals.
- Be prompt in attendance. Meet established and documented FAME AMT Program attendance standards.
- Demonstrate professional, honest, and ethical behavior at all times.
- Readily and positively accept constructive feedback and corrections to work and inappropriate behaviors.
- Perform effectively in high-stress environments.

## Professional Behavior

- Maintain academic honesty at all times.
- Practice professional and ethical behavior while using social media, and at all times protect the reputation of the FAME AMT Program, your school, and your company in your use of social media platforms.
- Adhere to college and department regulations and company policies and regulations.