Program Overview

The Automated Packaging Systems Technician program will give you the skills you need to enter a career in the packaging industry. You will be trained to service and repair a wide variety of packaging equipment and automated systems. Our program emphasizes the maintenance and troubleshooting of electrical, mechanical, and fluid power components on packaging equipment including industrial computer controls and programmable logic controllers. Classroom and hands-on lab instruction on packaging machines plus visits to packaging industries are all parts of the program. You will also participate in the Institute of Packaging Professionals meetings each month.

Special Features

This program is unique in the state. Global career opportunities are available. The packaging industry, both locally and nationally, provides unique support to the program by providing scholarships, equipment, and supplies.

Each student has the opportunity to apply for a tool scholarship in the form of a tool kit provided by the Packaging Machinery Manufacturing Institute (PMMI). The kit is the property of the student, at the completion of the program, to use in industry.

Student Profile

As an Automated Packaging Systems Technician student, you should be able to:

- Learn and apply mechanical principles and repair techniques
- Use good judgment
- Follow procedures carefully
- Handle and manipulate tools and testing equipment
- Assume responsibility for quality work
- Work under pressure
- Stand for long periods of time
- Work from prints and drawings

Preparation for Admission

The following experiences will help you prepare for this program:

- Basic Math/Algebra/Geometry
- Computer Skills
- General Science
- English
- Print Reading
- Drafting
- Welding/Metals/Machine Shop

Program Outcomes

Employers will expect you, as an Automated Packaging Systems Technician graduate, to be able to:

- Use engineering and machine layout drawings to assemble, install, and troubleshoot machines and machine assemblies.
- Apply the basics of mechanical and electrical concepts to operate and service automated packaging machines.
- Perform basic machining and welding operations.
- Apply basic communication skills to interface with people in business and industry.
- Accept responsibility, manage time and resources, and demonstrate a professional attitude when working alone or as a member of a team.
- Explain the basic properties of packaging materials and their applications in the packaging industry.

Career Outlook

After graduating from the Automated Packaging Systems Technician program, you will be ready to start your career as a:

- Packaging Systems Assembler
- Packaging Maintenance Technician
- Field Service Technician
- Line Mechanic/Adjuster
- Packaging Systems Operator

Curriculum

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>32414358</td>
<td>(A) AC/DC Circuits</td>
<td>3</td>
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<tr>
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<td>(B) AC/DC Circuits</td>
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<td>32414380</td>
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<td>Schematics, Prints, and Layouts</td>
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<td>32454345</td>
<td>Packaging Systems Equipment</td>
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<td>32454347</td>
<td>Electromechanical Componentry</td>
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<td>Troubleshooting</td>
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<td>32454349</td>
<td>Installation of Packaging</td>
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<td>32454357</td>
<td>Power Transmission Componentry</td>
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<td>Processes of Manufacturing</td>
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<td>Motion Controls</td>
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Occupational Supportive/General Studies Courses

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<td>Oral/Interpersonal Communication</td>
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<td>Technical Reporting</td>
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PROGRAM REQUIREMENTS 70

◆ This course requires a prerequisite and/or corequisite, and must be completed with a grade of “C-” or better.

* Appropriate placement score or Introduction to College Writing course required.
Course Descriptions

32454358  
(A) AC/DC Circuits - Credits: 3  
This course is an introduction to electricity. The focus will be on direct current as it is used in industry. It is a blend of the practical and theoretical. You will develop skills in reading schematics, circuit analysis, and electrical measurement techniques.

32454359  
(B) AC/DC Circuits - Credits: 3  
This course is an introduction to alternating current electricity as used in industry. It is a blend of the practical and theoretical. You will study series and parallel alternating current circuits, transformers, and three-phase alternators and motors. PREREQUISITE: 32449305 (A) AC/DC Circuits.

3244380  
Basic PLC - Credits: 3  
This course will provide a foundation for working with microprocessor controls. Students will learn the theory and application of electrical principles as they are applied to control systems found in industry. The learner will use trainers and machine components to develop and understand control systems. You will learn to think critically as an individual and as a member of a team. Prior knowledge of machine controls is required. PREREQUISITE: 32454347 Electromechanical Componentry.

32454342  
Packaging Machine Operations - Credits: 3  
In this course you will develop skills necessary to operate and adjust machinery in a safe and efficient manner. You will gain experience in product handling and performing assigned tasks on packaging machines. A step-by-step approach to understanding complex tasks from observation and written documents is a basic skill that can be used in a variety of occupations. COREQUISITE: 32449305 General Safety.

32454343  
Packaging Machine Rebuilding - Credits: 3  
The student will learn to plan, organize, and perform various tasks for the assembly or repair of packaging machines. Project work will be assigned for individuals and groups to assemble and disassemble packaging equipment simulating the work environment. Rebuilding machines: gives students the opportunity to see applications and problem areas found on custom machinery. PREREQUISITE: 32449305 General Safety.

32454344  
Schematics, Prints, and Layouts - Credits: 2  
This course covers an introduction and use of the many types of engineering drawings used to represent machines. Students will draw sketches and develop interpretation skills required for the correct translation of machine drawings. The ability to understand visualization techniques and symbol usage is a valuable and universal skill as used in everyday life. PREREQUISITE: 32449305 General Safety.

32454345  
Packaging Systems Equipment Control - Credits: 3  
This course gives the students the opportunity to perform the selection, design, installation, and operation of control systems found on automated packaging machines. The student will work with many types of components to gain recognition and skill development in the correct installation of electrical control systems. The modern control system requires specialized skills that are useful for understanding high technology applications such as robotics and climate control. PREREQUISITE: 32449305 General Safety.

32454347  
Electromechanical Componentry - Credits: 4  
This course will develop an understanding of the skills necessary for the selection and application of electromechanical components as used in modern control systems. You will have the opportunity to simulate a control system. You will develop techniques used for identifying failures and malfunctions that occur in control systems. PREREQUISITES: 32449305 (B) AC/DC Circuits and 32449305 General Safety.

32454348  
Troubleshooting - Credits: 2  
The learner will develop the skills necessary for troubleshooting by analyzing the process of problem solving. You will perform troubleshooting procedures on components, machines, and systems. You will learn to think critically as an individual and as a member of a team. Prior knowledge of machine controls is required. PREREQUISITE: 32449305 General Safety.

32454349  
Installation of Packaging Machines - Credits: 5  
The learner will develop skills necessary to plan, install, and perform system checkouts. You will develop a schedule to simulate a machine installation, provide operator training, and develop a team approach to the installation. A variety of packaging machines will be used for the installation projects. A successful installation requires proper planning, teamwork, and the ability to analyze the machine's performance. PREREQUISITE: 32449305 General Safety.

32454357  
Power Transmission Componentry - Credits: 2  
The learner will develop skills necessary to install, maintain, and replace mechanical drive system components. The learner will use machine components to gain an understanding of their use, operation, and maintenance requirements. The correct installation and maintenance is necessary for trouble-free operation. PREREQUISITE: 32449305 General Safety.

32454359  
Packaging Materials/Processes - Credits: 2  
You will learn how to identify equipment types, material properties, and research application history and trends. You will develop skill in identifying materials that are used in various packaging processes. Student presentations and industry tours will be utilized to study current industry issues and trends. PREREQUISITE: 32449305 General Safety.

32454362  
Processes of Manufacturing - Packaging - Credits: 2  
You will learn how to select materials, fabricate parts, and perform quality assurance used in a manufacturing environment. Students will perform a variety of tasks to develop skills necessary for the manufacturing of components. Manufacturing is a fast-paced, highly technical, and globally competitive industry that requires a basic understanding of manufacturing principles. COREQUISITE: 32449305 General Safety.

32454364  
Motion Controls - Credits: 2  
The student will learn the application of motion controllers used in industry that accurately control position or speed. The student will select the correct motion controller from application requirements as used in industry. Performance will include the installation, connection, configuring, and troubleshooting of basic motion controllers. PREREQUISITE: 32454347 Electromechanical Componentry.

Graduate Employment Information  
(WITC Graduate Survey Responses 2005-2006)

<table>
<thead>
<tr>
<th>Number of graduates</th>
<th>Number employed</th>
<th>% employed in WITC district</th>
<th>Range of yearly salary</th>
<th>Average yearly salary</th>
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<td>8</td>
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<td>$30,000-$75,000</td>
<td>$41,655</td>
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Number of responses 8  
Percent employed 100%  
Number available for employment 7  
Employed in related field 7  

800.243.9482  
witc.edu