

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE  
ACADEMIC AFFAIRS

Course Number: EET-106 Class/Lect. Hours: 1 Lab Hours: 0 Credit: 1 Dept.: ELEC. AS/EROB COC  
Course Title: Developing Troubleshooting Skills Semester: Fall Year: 2015

**Course Description, Prerequisite, Corequisite:**

This course will present various skills which can aid in troubleshooting electromechanical equipment commonly found in an automated manufacturing environment. Key topics will include effective communication, troubleshooting techniques, aids to troubleshooting, solving electrical & mechanical problems, breakdown and planned maintenance. This course will meet for 5 weeks.

**Prerequisite:** EET-104, EET-105 or permission of instructor.

Course Objectives	Competencies
1. Understand basic need for effective troubleshooting skills.	<ul style="list-style-type: none"> <li>a. Understand impact on plant production.</li> <li>b. List the steps in troubleshooting machines and systems.</li> <li>c. In-house and contract maintenance services.</li> <li>d. Know the role of experience in effective troubleshooting.</li> </ul>
2. Understand how effective communication aids in troubleshooting.	<ul style="list-style-type: none"> <li>a. Understand the need for effective interpersonal skills.</li> <li>b. Be able to write and speak effectively.</li> <li>c. How to deal with differences of opinion.</li> </ul>
3. Know basic troubleshooting techniques.	<ul style="list-style-type: none"> <li>a. Distinguish between normal &amp; unusual operation.</li> <li>b. Know proper questions to ask.</li> <li>c. Understand the importance of maintenance records and logs.</li> </ul>
4. Know basic troubleshooting tools.	<ul style="list-style-type: none"> <li>a. Understand schematic diagrams, flowcharts &amp; blueprints.</li> <li>b. Be able to identify &amp; understand the need for calibration standards.</li> <li>c. Identify basic diagnostic equipment such as DMM, micrometer, etc.</li> </ul>
5. Identify common electrical problems.	<ul style="list-style-type: none"> <li>a. Understand &amp; identify basic electrical safety devices.</li> <li>b. Understand basic electrical safety procedures.</li> <li>c. Understand open circuit and short circuit concepts.</li> <li>d. Understand series and parallel circuit concepts.</li> </ul>