

# 10-620-1 Electro-Mechanical TSA Rubric

## Directions

This summative assessment scoring guide will be used to determine if you have met the program outcomes at the end of the program. To meet the requirements on the scoring guide, you will be asked to draw upon the skills and concepts that have been developed throughout the program and are necessary for successful employment in your field. Your instructor will provide detailed instructions on this rubric will be used. After your instructor completes this scoring guide, you will receive feedback on your performance including your areas of accomplishment and areas that need improvement.

Program Outcomes	Rating Scale	
<ol style="list-style-type: none"> <li>1. Perform work safely</li> <li>2. Troubleshoot electrical and mechanical systems and devices</li> <li>3. Repair electrical and mechanical systems</li> <li>4. Communicate Technical Information</li> <li>5. Setup, Install, and Integrate electrical and mechanical systems and devices</li> </ol>	<b>MET</b>	Performs skill relatively independently at entry level. Proficient; sequence of movements and communication are fluid, even and intertwined; economical use of movements; equipment and conversation; expedient or minimal time frame; student appears confident and only occasionally expends excess energy.
	<b>NOT MET</b>	Does not perform skill relatively independently at entry level.

## Scoring Standard

You must achieve a rating of MET on all criteria for each program outcome to demonstrate competence (passing). A rating of NOT MET on any criterion results in a NOT MET score for that program outcome and for the TSA Assessment.

Scoring Guide			
Criteria		Ratings	
<b>1. Perform work safely</b>		<b>Met</b>	<b>Not Met</b>
a. Follow Lock-out Tag-out safety procedures and practices to ensure proper start-up and shutdown of equipment		<input type="checkbox"/>	<input type="checkbox"/>
b. Follow Personal Protective Equipment requirements		<input type="checkbox"/>	<input type="checkbox"/>
c. Follow established safety policies and practices (e.g. OSHA, site specific)		<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Troubleshoot electrical and mechanical systems and devices</b>		<b>Met</b>	<b>Not Met</b>
a. Verify proper operation or problem		<input type="checkbox"/>	<input type="checkbox"/>
b. Identify the cause of the problem: mechanical, electrical		<input type="checkbox"/>	<input type="checkbox"/>
c. Determine corrective action		<input type="checkbox"/>	<input type="checkbox"/>
d. Utilize appropriate test equipment		<input type="checkbox"/>	<input type="checkbox"/>

## Scoring Guide

Criteria	Ratings	
<b>3. Repair electrical and mechanical systems</b>	<b>Met</b>	<b>Not Met</b>
a. Utilize tools appropriate to the electromechanical field	<input type="checkbox"/>	<input type="checkbox"/>
b. Select replacement components	<input type="checkbox"/>	<input type="checkbox"/>
c. Configure replacement components	<input type="checkbox"/>	<input type="checkbox"/>
d. Install replacement components	<input type="checkbox"/>	<input type="checkbox"/>
e. Validate system performance	<input type="checkbox"/>	<input type="checkbox"/>
f. Perform preventative maintenance	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Communicate Technical Information</b>	<b>Met</b>	<b>Not Met</b>
a. Interpret documentation of electro-mechanical devices and systems	<input type="checkbox"/>	<input type="checkbox"/>
b. Use field specific technical terminology in speaking and writing	<input type="checkbox"/>	<input type="checkbox"/>
c. Create electro-mechanical diagrams	<input type="checkbox"/>	<input type="checkbox"/>
d. Document problems and solutions	<input type="checkbox"/>	<input type="checkbox"/>
e. Interpret electro-mechanical diagrams	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Set up, Install, and Integrate electrical and mechanical systems and devices</b>	<b>Met</b>	<b>Not Met</b>
a. Identify required communication protocols	<input type="checkbox"/>	<input type="checkbox"/>
b. Configure electronic equipment for data communication compatibility	<input type="checkbox"/>	<input type="checkbox"/>
c. Configure sensors, controls and actuators for system compatibility	<input type="checkbox"/>	<input type="checkbox"/>
d. Install required communications infrastructure	<input type="checkbox"/>	<input type="checkbox"/>
e. Verify communications between systems and devices	<input type="checkbox"/>	<input type="checkbox"/>
f. Install, remove and relocate equipment and system	<input type="checkbox"/>	<input type="checkbox"/>

### Overall Score

<b>TSA Assessment Score:</b>		<b>PASS</b>	<b>FAIL</b>
Note: Each program outcome and the over-all requirements must earn a rating of "Met" to achieve an over-all score of "Pass" on the assessment.			
<b>Student Name:</b>		<b>ID #:</b>	
<b>Evaluator Signature:</b>		<b>Date:</b>	