

**Volunteer State Community College  
Mechatronics Technology Program  
And  
Tennessee College of Applied Technology  
Industrial Maintenance Program**

**Course Equivalency Table**

<b>Vol State Requirement</b>	<b>Vol State Credits/ Total class hours</b>	<b>TCAT-L Course Equivalencies</b>	<b>TCAT-L hours</b>	<b>TCAT-L trimester</b>
AIIT 1610 – Workplace Safety	3/60	IMS 1020 – MSSC Safety	60	1 <sup>st</sup>
MECH 1100 – Electrical Components	3/60	IMS 1030 – Electrical I	66	1 <sup>st</sup>
MECH 1200 – Mechanical Components and Electrical Drives	3/60	IMS 1060 – Motor and Rotating Electrical Machines	80	1 <sup>st</sup>
		IMS 1070 – Mechanical I	65	1 <sup>st</sup>
		<b>Total TCAT-L hours</b>	<b>145</b>	
MECH 1300 – (Electro) Pneumatic and Hydraulic Control Circuits	3/60	IMS 1040 - Pneumatics	25	1 <sup>st</sup>
		IMS 1050 – Hydraulics	60	1 <sup>st</sup>
		IMS 2030 – Intermediate Pneumatics	41	2 <sup>nd</sup>
		IMS 2040 – Intermediate Hydraulics	56	2 <sup>nd</sup>
		<b>Total TCAT-L hours</b>	<b>182</b>	
MECH 1500 – Digital Fundamentals and Programmable Logic Controllers	3/60	IMS 2090 – Electrical Systems	30	2 <sup>nd</sup>
		IMS 4070 – PLC (Siemens)	80	4 <sup>th</sup>
		<b>Total TCAT-L hours</b>	<b>110</b>	
MECH 2100 – Process Control Technologies	4/75	IMS 4080 - Process Control	106	4 <sup>th</sup>