

## Electro-Mechanical Technology Courses and Booklist

Electro-Mechanical Technology Courses and Booklist <i>Electrical and Electronic Assembler</i>			Prerequisite: None		
1st Trimester	Certificate: Electrical and Electronic Assembler				
COURSE NUMBER	BOOKS AND SUPPLIES	PUBLISHER	ISBN	COST	QTY
ELM-0001 Worker Characteristics	None	None		\$0.00	
ELM-1010 Orientation & Safety	OSHA 10 Voucher (must purchase from TCAT-H bookstore)	CareerSafe		\$25.00	
ELM-1020 Customer Service	Customer Service Specialist Study Guide	ETA	1-891749-08-0	\$24.00	
	Customer Service Specialist Certification Exam Fee	ETA		\$80.00	
ELM-1030 Basic Math	None-Computer Based Instruction (Provided)	Nida		\$0.00	
ELM-1040 Computer Concepts I	Welcome to Windows Basics-Windows 10 & Office Online	Labyrinth Learning	978-1-59136-791-8	\$139.00	
ELM-1050 DC Circuits I	EM1 DC Certification Study Guide (Download only from ETA)	ETA		\$25.00	
	Scientific Calculator (Casio fx-300MS or equivalent)	Casio		\$19.00	
	Digital Multimeter (Extech EX330 or equivalent)	Extech		\$72.00	
	EM1 DC Certification Exam Fee	ETA		\$30.00	
	DC CertTEC Certification Exam Fee	CertTEC		\$85.00	
ELM-1060 Soldering Techniques/Tools	Safety Glasses			\$2.00	
	Pocket Pack Solder .031 DIA 5 oz.			\$3.00	
	Desoldering Braid			\$2.00	
	Lithium 3V Battery			\$1.00	
	Soldering Project Kit (96901410)	Nida		\$31.00	
	The Tingler Soldering Kit (C6740)	Chaney Electronics		\$16.00	
	Shaking Dice Soldering Kit (MK150)	Vellemen		\$18.00	
	Cables and Connectors Kit (96901459)	Nida		\$66.00	
ELM-1070 Electronics for Maintenance	None-Computer Based Instruction (Provided)	Nida			
ELM-1080 Worker Ethics & Ex. I	None	None			
ELM-1090 Integrated Projects I	None	None			
ELM-1100 Technology Foundations	None-Computer Based Instruction (Provided)	ACT WorkKeys		\$0.00	
<b>432 Contact Hours</b>		<b>Trimester 1 Books, Tests, and Supplies Total</b>		<b>\$638.00</b>	

**Note: Prices are estimates and subject to change without notice; state sales tax will be added to certain items**

**Student is responsible for miscellaneous material (paper, pencils, tools, etc.)**      revised 07/20/20

Electro-Mechanical Technology Courses and Booklist <i>Electrician Helper</i>			Prerequisite: Electrical and Electronic Assembler Certificate			
2nd Trimester		Certificate: Electrician Helper 864 Total Contact Hours				
COURSE NUMBER	BOOKS AND SUPPLIES	PUBLISHER	ISBN	COST	QTY	
ELM-0002 Worker Characteristics	None	None		\$0.00		
ELM-2010 Commercial Wiring I	Modern Commercial Wiring Textbook 2017	Goodheart-Wilcox	978-1-63126-908-0	\$84.00		
	Modern Commercial Wiring Workbook 2017	Goodheart-Wilcox	978-1-63126-910-3	\$27.00		
ELM-2020 Commercial Wiring II	Model 9000 Commercial/Industrial Trainer Workbook	FutureTek		\$63.00		
	Ugly's Electrical Reference Pocket Handbook	Gardner Bender	978-1-4496-9077-9	\$21.00		
ELM-2030 Commercial Wiring III	Model CWT300 Trainer Workbook	FutureTek	none	\$63.00		
	Ugly's Conduit Bending Pocket Handbook	Gardner Bender	978-0-7637-8314-3	\$21.00		
ELM-2040 Intro. to Applied Technology	None	None				
ELM-2050 Power Distribution	None-Computer Based Instruction (Provided)	Nida				
ELM-2060 Power Technology I	Investigations in Power Technology	Festo	978-2-89289-550-6	\$76.00		
ELM-2070 Worker Ethics & Ex. II	None	None				
ELM-2080 Integrated Projects II	None	None				
<b>432 Contact Hours (864 Total Contact Hours)</b>		<b>Trimester 2 Books, Tests, and Supplies Total \$355.00</b>				

<b>Electro-Mechanical Technology Courses and Booklist <i>Maintenance Associate Diploma</i></b>			<b>Prerequisite:Electrician Helper Certificate</b>		
<b>3rd Trimester</b>			<b>Diploma:Maintenance Associate 1296 Total Contact Hours</b>		
<b>COURSE NUMBER</b>	<b>BOOKS AND SUPPLIES</b>	<b>PUBLISHER</b>	<b>ISBN</b>	<b>COST</b>	<b>QTY</b>
ELM-0003 Worker Characteristics	None	None		\$0.00	
ELM-3010 Pneumatics I	Pneumatic Fundamentals	Festo	978-2-89289-383-0	\$25.00	
	Industrial Pneumatic Technology (supplied)	Parker	978-155769-014-2	\$0.00	
ELM-3020 Principles of PLC's	CM-284-L1 Workbook	TII		\$165.00	
	Programmable Logic Controllers Connect Access Card	McGraw-Hill	9781259684661	\$116.00	
ELM-3030 AC Motors	None-Computer Based Instruction (Provided)	Nida			
ELM-3040 AC Drive Fundamentals	None- (Provided by Instructor)	Festo			
ELM-3050 Professional Development	Connecting to Business (Provided by Instructor)	C-Tech			
ELM-3060 Robotics I	Mechatronics Training Guide (Provided by Instructor)	Festo			
ELM-3070 Worker Ethics & Ex. III	None	None			
ELM-3080 Integrated Projects III	None	None			
<b>432 Contact Hours (1296 Total Contact Hours)</b>			<b>Trimester 3 Books, Tests, and Supplies Total \$306.00</b>		

<b>Electro-Mechanical Technology Courses and Booklist <i>Maintenance Electrician Diploma</i></b>			<b>Prerequisite: Maintenance Associate Diploma</b>		
<b>4th Trimester</b>			<b>Diploma:Maintenance Electrician 1728 Total Contact Hrs.</b>		
<b>COURSE NUMBER</b>	<b>BOOKS AND SUPPLIES</b>	<b>PUBLISHER</b>	<b>ISBN</b>	<b>COST</b>	<b>QTY</b>
ELM-0004 Worker Characteristics	None	None		\$0.00	
ELM-4010 Industrial Sensors	Principles and Applications of Industrial Sensors	TII		\$30.00	
ELM-4020 Intermediate PLC Progr.	Automation and Robotics-FMS (Provided by Instructor)	Festo		\$0.00	
ELM-4030 Advanced Pneumatics	Electrical Controls of Pneumatic Systems	Festo	978-2-89289-410-3	\$31.00	
ELM-4040 Control of Industrial Motors	Control of Industrial Motors	Festo	978-2-89289-143-3	\$39.00	
ELM-4050 Integrated Projects IV	None	None			
ELM-4060 Worker Ethics & Ex. IV	None	None			
<b>432 Contact Hours (1728 Total Contact Hours)</b>			<b>Trimester 4 Books, Tests, and Supplies Total \$100.00</b>		

Electro-Mechanical Technology Courses and Booklist <i>Electro-Mechanical Tech.Diploma</i>		Prerequisite: Maintenance Electrician Diploma			
5th Trimester		Diploma:Electro-Mechanical Tech. 2160 Total Contact Hrs.			
COURSE NUMBER	BOOKS AND SUPPLIES	PUBLISHER	ISBN	COST	QTY
ELM-0005 Worker Characteristics	None	None		\$0.00	
ELM-5010 Hydraulics I	Explorer II Hydraulics	TII		\$53.00	
ELM-5020 Hydraulics II/III	Explorer II Hydraulics	TII		\$0.00	
ELM-5030 Machining/Fab. Fund.	Precision Machining Technology (Provided by Instructor)	Cengage Learning	978-1285444543	\$0.00	
ELM-5040 Basic Air Cond./Refridger.	4210 HVAC Troubleshooting Trainer (Provided by Instructor)	Future Tek		\$0.00	
ELM-5050 Basic Welding Procedures	Welding Skills 5th Ed. By: B.J. Moniz	ATP	978-0826930842	\$0.00	
	Welding Helmet			\$23.00	
	Welding Gloves			\$15.00	
	Cutting Goggles			\$17.00	
ELM-5060 Mechanical Systems	Amatrol (Provided by Instructor)				
<b>432 Contact Hours (2160 Total Contact Hours)</b>		<b>Trimester 5 Books, Tests, and Supplies Total</b>			<b>\$108.00</b>

**Course Books and Supplies Totals**

Electrical and Electronic Assembler Certificate Books and Supplies Total	<b>\$638.00</b>
Electrician Helper Certificate Books and Supplies Total	<b>\$355.00</b>
Maintenance Associate Diploma Books and Supplies Total	<b>\$306.00</b>
Maintenance Electrician Diploma Books and Supplies Total	<b>\$100.00</b>
Electro-Mechanical Technician Diploma Books and Supplies Total	<b>\$108.00</b>
<b>Electro-Mechanical Technology Program Books and Supplies Total</b>	<b>\$1507.00</b>