

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-1011 Technology Foundations	None-Computer Based Instruction (Provided)	WIN System		\$0.00		
ELM-1012 Orientation & Safety	OSHA 10 Voucher (must purchase from TCAT-H bookstore)	CareerSafe		\$59.00		
	Headphones			\$2.00		
ELM-1013 Customer Service	Customer Service Specialist Study Guide	ETA	1-891749-08-0	\$24.00		
	Customer Service Specialist Certification Exam Fee	ETA		\$80.00		
ELM-1014 Basic Math	None-Computer Based Instruction (Provided)	Nida		\$0.00		
ELM-1040 Computer Concepts I	Welcome to Computer Basics 2nd Ed.	Labyrinth Learning	978-1-64061-206-8	\$72.00		
	USB Flash Drive			\$6.00		
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		\$18.00		
	Digital Multimeter (Klein MM400 or equivalent)	Klein		\$68.00		
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-1091 Integrated Projects I	None	None				
432 Contact Hours		Trimester 1 Books, Tests, and Supplies Total		\$493.00		

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 08/02/2023

(effective Fall 2023)

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 2020	Goodheart-Wilcox	978-1-63563-875-2	\$144.00		
	Modern Commercial Wiring Workbook 2020	Goodheart-Wilcox	978-1-63563-876-9	\$38.00		
ELM-2020 Commercial Wiring II	Model 9000 Commercial/Industrial Trainer Workbook	FutureTek	SM9000CW	\$62.00		
	Ugly's Electrical Reference Pocket Handbook 2020 Ed.	Gardner Bender	978-1284194531	\$18.00		
ELM-2030 Commercial Wiring III	Model CWT300 Trainer Workbook	FutureTek	978-0-578-10932-9	\$62.00		
	Ugly's Conduit Bending Pocket Handbook 2020 Ed.	Gardner Bender	978-1284201147	\$24.00		
ELM-2040 Intro. to Applied Technology	None-(provided by instructor)	None		\$0.00		
ELM-2050 Power Distribution	None-Computer Based Instruction (Provided)	Nida		\$0.00		
ELM-2060 Power Technology I	Investigations in Power Technology	Festo	583758	\$30.00		
ELM-2070 Worker Ethics & Ex. II	None	None		\$0.00		
ELM-2080 Integrated Projects II	EM1 DC Certification Exam Fee	ETA		\$30.00		
	DC CertTEC Certification Exam Fee	CertTEC		\$85.00		
432 Contact Hours (864 Total Contact Hours)			Trimester 2 Books, Tests, and Supplies Total \$493.00			

Electro-Mechanical Technology Courses and Booklist <i>Maintenance Associate Diploma</i>			Prerequisite: Electrician Helper Certificate			
3rd Trimester			Diploma: Maintenance Associate 1296 Total Contact Hours			
COURSE NUMBER	BOOKS AND SUPPLIES	PUBLISHER	ISBN	COST	QTY	
ELM-0003 Worker Characteristics	None	None		\$0.00		
ELM-3010 Pneumatics I	Pneumatic Fundamentals	Festo	584196	\$30.00		
	Industrial Pneumatic Technology (supplied)	Parker	978-155769-014-2	\$0.00		
ELM-3020 Principles of PLC's	CM-284-L1 PAC Workbook 2nd Ed. Version 2.11	TII		\$120.00		
	Programmable Logic Controllers Connect Access Card 6e	McGraw-Hill	9781264446759	\$129.00		
ELM-3030 AC Motors	None-Computer Based Instruction (Provided)	Nida		\$0.00		
ELM-3040 AC Drive Fundamentals	SM PF-40 Drive Student Lab Manual	Future Tek		\$67.00		
ELM-3050 Professional Development	Connect to Your Career 3rd Ed.	Good-Heart Willcox	978-1-64564-747-8	\$66.00		
ELM-3060 Robotics I	Mechatronics Training Guide (Provided by Instructor)	Festo		\$0.00		
ELM-3070 Worker Ethics & Ex. III	None	None		\$0.00		
ELM-3080 Integrated Projects III	SM-L24-SAS-SIM-V32 Student Lab Manual	Future Tek		\$63.00		
432 Contact Hours (1296 Total Contact Hours)				Trimester 3 Books, Tests, and Supplies Total \$475.00		

Electro-Mechanical Technology Courses and Booklist <i>Maintenance Electrician Diploma</i>			Prerequisite: Maintenance Associate Diploma			
4th Trimester			Diploma: Maintenance Electrician 1728 Total Contact Hrs.			
COURSE NUMBER	BOOKS AND SUPPLIES	PUBLISHER	ISBN	COST	QTY	
ELM-0004 Worker Characteristics	None	None		\$0.00		
ELM-4010 Industrial Sensors	Principles and Applications of Industrial Sensors	TII	MB600	\$73.00		
ELM-4020 Intermediate PLC Progr.	SM-PanelView Plus 7 Student Lab Manual	Future Tek		\$67.00		
	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	\$30.00		
ELM-4040 Control of Industrial Motors	Control of Industrial Motors	Festo	978-2-89289-143-3	\$30.00		
ELM-4050 Integrated Projects IV	Model 7100 ICST (Provided by Instructor)	Future Tek		\$0.00		
ELM-4060 Worker Ethics & Ex. IV	Connect to Your Career 3rd Ed. (Purchased in 3rd Trimester)	Good-Heart Willcox	978-1-64564-747-8	\$0.00		
432 Contact Hours (1728 Total Contact Hours)				Trimester 4 Books, Tests, and Supplies Total \$200.00		

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		\$77.00	
ELM-5020 Hydraulics II/III	Explorer II Hydraulics	TII		\$0.00	
ELM-5060 Mechanical Systems	Festo LX-Provided by Instructor	Festo		\$0.00	
ELM-5070 Instrume. & Process Control	Festo LX-Provided by Instructor	Festo		\$0.00	
ELM-5080 Advanced PLC's & Automation	Festo LX-Provided by Instructor	Festo		\$0.00	
432 Contact Hours (2160 Total Contact Hours)		Trimester 5 Books, Tests, and Supplies Total			\$77.00

Course Books and Supplies Totals

Electrical and Electronic Assembler Certificate Books and Supplies Total	\$493.00
Electrician Helper Certificate Books and Supplies Total	\$493.00
Maintenance Associate Diploma Books and Supplies Total	\$475.00
Maintenance Electrician Diploma Books and Supplies Total	\$200.00
Electro-Mechanical Technician Diploma Books and Supplies Total	\$77.00
<i>Electro-Mechanical Technology Program Books and Supplies Total</i>	\$1738.00
<i>Electro-Mechanical Technology Program Tuition Total</i>	\$6865.00
<i>Electro-Mechanical Technology Total Program Cost</i>	\$8603.00