

**Advisory Committee Fall 2025 Minutes
Electrical Engineering Technology
October 1, 2025, 12:00pm**

Vernon College Skills Training Center, Multipurpose room 400

Members Present

Ken Theimer

~~Dakota Patterson~~ sub. Daniel Vasquez

Kelly Easter

Randy Brooks

Ian Bentley

Wayne Byrd

Tom Ostovich

Vernon College Faculty/Staff

Bettye Hutchins

Dr. Mark Holcomb

Zachary Nguyen-Moore

Melissa Moore

Madison Kretzmer

Members Not Present

Gordon Drake

Bobby Ayala

Dr. Holcomb started by welcoming the committee. Bettye Hutchins thanked the committee members for their service, reviewed the purpose and importance of input from local industry professionals' participation. Bettye asked for volunteers or nominations for vice-chair and recorder.

Chair: Ken Theimer

Vice-Chair: Randy Brooks

Recorder: Tom Ostovich

Election of Vice-Chair, and RecorderBettye Hutchins

Chair..... Ken Theimer

Old Business/Continuing BusinessKen Theimer

New BusinessKen Theimer

A. Review program outcomes

Ken Theimer asked the faculty to review the program outcomes. Dr. Mark Holcomb reviewed the following outcomes and how they are presented in each course.

Program outcomes

1. Apply basic AC/DC electrical and electronic fundamentals to the wire, integrate, and troubleshoot electrical devices and systems. Devices are used in industrial environments to increase the efficiency of production.
2. Incorporate local, state, and federal safety requirements and guidelines in the design of electrical systems. Automate different manufacturing processes.
3. Interpret schematics and wiring diagrams and recognize the sequence of operations occurring in automated electrical systems.

4. Develop programs, calibrate devices, and tune PID parameters for various types of process control systems, including such as pressure, level, flow, and temperature control systems.
5. Calculate requirements of electrical systems utilized in commercial, industrial, and high voltage distribution and transmission applications.
6. Design, program, integrate, and troubleshoot automation control devices such as PLC (Programmable Logic Controllers), PID (Proportional Integral Derivative) Controllers, and PAC (Programmable Automation Controllers), Robotic Units (workcells)

Program Outcomes Mapped to courses

Program: Electrical Engineering Technology							Credential: Associate in Applied Science (AAS) Degree	
Award: Electrical Engineering Technology Associate in Applied Science (AAS) Degree								
Cip: 15.0303								
LIST OF ALL COURSES REQUIRED AND OUTCOMES								
OUTCOMES						Course Number	Course Title	
1	2	3	4	5	6			
						LEAD 1100*	Workforce Development with Critical Thinking	
X		X	X		X	ELPT 1411*	Basic Electrical Theory	
X	X	X		X		HART 1401*	Basic Electricity for HVAC	
X		X	X		X	ELMT 2433*	Industrial Electronics	
X	X	X		X		ELPT 1441*	Motor Control	
X	X	X		X		ELPT 1457*	Industrial Wiring	
	X	X		X		ELPT 2339*	Electrical Power Distribution	
		X	X		X	ELPT 2355	Programmable Logic Controllers II	
X	X	X				EEIR 2366	Practicum (or Field Experience) - Electrical/Electronics Equipment Installation and Repairer, General	
X	X	X	X		X	ELPT 2319*	Programmable Logic Controllers I	
X	X	X		X		ELPT 2443*	Electrical Systems Design	
X		X	X		X	ELPT 2449	Industrial Automation	
X					X	RBTC 1405 *	Robotic Fundamentals	
X				X	X	ELPT 1321*	Electrical Safety and Tools	
X		X		X		RBTC 2445	Robotic Application, Set-up, and Testing	
						6. Design, program, integrate, and troubleshoot automation control devices such as PLC (Programmable Logic Controllers), PID (Proportional Integral Derivative) Controllers, and PAC (Programmable Automation Controllers) Robotic Units (work cells)		

5. Calculate requirements of electrical systems utilized in commercial, industrial, and high voltage distribution and transmission applications.
4. Develop programs, calibrate devices, and tune PID parameters for various types of process control systems, including such as pressure, level, flow, and temperature control systems.
3. Interpret schematics and wiring diagrams and recognize the sequence of operations occurring in automated electrical systems.
2. Incorporate local, state, and federal safety requirements and guidelines in the design of electrical systems. Automate different manufacturing processes.
1. Apply basic AC/DC electrical and electronic fundamentals to the wire, integrate, and troubleshoot electrical devices and systems. Devices are used in industrial environments to increase the efficiency of production.

1. Approve program outcomes

After review of the program outcomes, Ken asked for a motion to approve the program outcomes with updates presented.

Randy Brooks made a motion to approve the program outcomes as presented.

Ken Theimer seconded the motion.

The motion passed and the committee approved the program outcomes as presented.

Ken moved on to assessment methods.

B. Assessment methods and results

Ken Theimer asked Dr. Holcomb to review the following information regarding assessment methods and results.

ELECTRICAL ENGINEERING TECHNOLOGY CAPSTONE EXPERIENCE GRADING RUBRIC

STUDENT:

STUDENT ID:

Topic	Target = 5 Acceptable = 4 Borderline = 3 Unacceptable = 2 Incomplete = 1	5	4	3	2	1
Resume	The resume was clear, concise, and fully descriptive of the student's attributes.					
Programmable Logic (Automation) Control	The student will perform the 3 tasks to demonstrate knowledge of the circuit construction reading program to feature advanced programming on the Allen-Bradley Compact Logic Controller to assess learning in automated controls. (PO1, PO3, PO5,)					
<i>Task One: Wiring</i>	Did the wiring meet operational and quality standards set by the instructor? (Able to integrate Mechanical devices, solid-state devices, and various loads (outputs) correctly)					
<i>Task Two: Programming</i>	Did the programming meet the scenario as described in the capstone project?					
<i>Task Three: Editing Program</i>	Did the programmer edit the program to allow easy understanding for non-technical observers? (Online editing using RSLogix 5000)					

<i>Task Three: PID Control</i>	Did the student follow assignment instructions properly and completed all tasking for adjustment of the PID loop? (Using new PID loop trainers with RS Logix 5000)					
<i>Task four: Adjustable Frequency Drive</i>	Using an Allen-Bradley Flex 40, students will develop an operational program that utilizes Scaled parameter Analog signal Control. (PO1, PO3, PO4, PO5)					
<i>Task Five: Wiring</i>	Was wiring completed with meeting Quality standards and functioning properly?					
<i>Task Two: Advanced Parameter Setting</i>	Were all parameters programmed correctly so the drive integrated properly with PLC to perform tasks?					
Motor Control Troubleshooting	Following proper safety procedures, students will use the schematic wiring diagram and digital multimeter to locate the fault. (PO1, PO3, PO4, PO5)					
<i>Task One: Fault One</i>	Did the student use a systematic approach and locate the fault in the control circuit?					
<i>Task Two: Fault Two</i>	Did the student use a systematic approach and locate the fault in the control circuit?					
<i>Task Three: Fault Three</i>	Did the student use a systematic approach and locate the fault in the control circuit?					
<i>Task Four: Fault Four</i>	Did the student use a systematic approach and locate the fault in the control circuit?					
Electrical Design Calculation	Students calculated per National Electric Code (NEC) sizing of conductor, overcurrent protection, and overload protection for motor circuit. (PO1, PO2, PO3, PO5)					
Using Solidworks, Design a feeder circuit for 3 motors						
<i>Task one: One-line diagram</i>	Student created a one-wiring diagram detailing the motor circuits as per the calculated values from the Electrical Design.					
<i>Task two: Construct control circuits</i>	Student created a motor control circuit as instructed in the assigned Scenario.					
<i>Task three: Advanced Electrical calculations</i>	The student provided advanced calculations for adjusted Power Correction Factor, and Short Circuit Analysis rating at instructor-selected locations.					
<i>Task four:</i>	The student will be evaluated using the results of the midterm and final exam from ELPT 2443, Electrical Systems Design					
	Instructor Notes:					
Total (80)						

MASTERY OF PROGRAM CONTENT:	80 to 76
PROFICIENT AT PROGRAM CONTENT:	75 to 70
COMPETENT AT PROGRAM CONTENT:	69 to 64
UNSATISFACTORY SCORE:	Below 64

1. Approve assessment methods and results

After review, Ken asked for a motion to approve the assessment methods and results as presented.

Ian Bentley made a motion to approve the assessment methods and results as presented.

Tom Ostovich seconded the motion.

The motion passed and the committee approved the assessment methods and results as presented.

Ken moved on to workplace competency.

C. Workplace competency (course or exam)

Ken Theimer asked the faculty to review the workplace competency. Dr. Holcomb reviewed the following information.

Verification of workplace competencies:

Level 1 Certificate: ELPT 2443 – Electrical Systems Design

A.A.S: ELPT 2443 - Electrical Systems Design

Program Outcome	Number of students who took the course or licensure exam	Results per student	Use of results
1.	19	19 PASSED	No Action
2.	19	19 PASSED	No Action
3.	19	19 PASSED	Add Electrical Solidwork schematic software for students to develop diagrams and add sketching circuits prior to wiring exercising
4.	19	19 PASSED	Development of more instrumentation performance labs Completed
5.	19	19 PASSED	Need for additional Application Math training for complex equations Completed
6.	19	19 PASSED	More training on communication issues On Going

1. Approval of workplace competency

After review, Ken asked for a motion to approve the workplace competency as presented.

Kelly Easter made a motion to approve the workplace competency as presented.

Daniel Vasquez seconded the motion.

The motion passed and the committee approved the workplace competency as presented.

With nothing to discuss regarding program specific accreditation, Ken moved on to review program curriculum, courses, and degree plans.

D. Program Specific Accreditation Information and Requirements (if applicable)

N/A

E. Review program curriculum/courses/degree plans

Ken Theimer asked the faculty to review proposed changes to curriculum, courses, and degree plans for the '26-'27 term.

Dr. Holcomb reviewed the restructuring of the program to offer multiple exit points and stackable credentials existing of an Occupational Skills Award (OSA), Level I Certificate, Level II Certificate, and Associate of Applied Science Degree. This allows students who cannot complete the full degree in one attempt to still earn useful credentials even if they can only attend one semester or one year. Each credential's course requirements feeds into the next.

Dr. Holcomb proposed ELPT 1321 "Introduction to Electrical Safety and Tools" be removed from the degree plan and the 3 semester credit hours (SCH) be evenly disbursed amongst three existing 3-SCH courses changing them to 4-SCH courses: ELPT 2355 (now ELPT 2455) "Programmable Logic Controllers II", EEIR 2366 (now EEIR 2466) "Practicum", and ELPT 2319 (now ELPT 2419) "Programmable Logic Controllers I".

Upon removal of ELPT 1321 from the degree plan, the offering of OSHA 10 certification would be removed as well. NFPA 70E certification would remain, but be moved from ELPT 2443 "Electrical Systems Design" to ELPT 1457 "Industrial Wiring."

Electrical Engineering Technology

updated 9.19.25

AAS

Cont

Course	Title	SCH	Lec	Lab	Hrs
ENGL 1301	Comp I	3	3	0	48
GOVT 2305	Fed Govt	3	3	0	48
MATH 1332 /1324	Contem Math/Math for Business & Social Science	3	3	0	48
SPCH 1315	Public Spk	3	3	0	48
SFF	elective	3	3	0	48
ELPT 1411	Basic Electrical Theory(A)	4	3	2	80
or					
HART 1401	Basic Electricity for HVAC				

ELPT 1321	Introduction to Electrical Safety and Tools	-	2	2	64
ELMT 2433	Industrial Electronics	4	3	2	80
ELPT 1441	Motor Control	4	3	2	80
ELPT 1457	Industrial Wiring	4	3	2	80
LEAD 1100	Workforce Development w/Critical Thinking	1	1	1	32
ELPT 2439	Electrical Power Distribution	4	3	2	80
ELPT 2455	Programmable Logic Controllers II	4	3	2	80
OR					
EEIR 2466	Practicum		0	21	
ELPT 2419	Programmable Logic Controllers I	4	3	2	80
ELPT 2443	Electrical Systems Design	4	3	2	80
ELPT 2449	Industrial Automation	4	3	2	80
RBTC 1405	Robotic Fundamentals	4	3	2	80
RBTC 2445	Robotic Application, Set-up, and Testing	4	3	2	80
		60			1216

Verification of Wkpl Comp: ELPT 2443

OSA

ELPT 1411	Basic Elec Theory	4	3	2	80
or					
HART 1401	Basic Elec Theory for HVAC				
ELPT 1321	Introduction to Electrical Safety and Tools	-	2	2	-
ELPT 1441	Motor Controls	4	3	2	80
RBTC 1405	Robotic Fundamentals	4	3	2	80
	Total	12			240

Level 1 Cert

ELPT 1411	Basic Elec Theory	4	3	2	80
or					
HART 1401	Basic Elec Theory for HVAC				
ELPT 1321	Introduction to Electrical Safety and Tools	-	2	2	-
ELPT 1441	Motor Controls	4	3	2	80
ELPT 2419	Programmable Logic Controllers I	4	3	2	80
ELPT 1457	Industrial Wiring	4	3	2	80
ELMT 2433	Industrial Electronics	4	3	2	80
RBTC 1405	Robotic Fundamentals	4	3	2	80
		24			480

Verification of Wkpl Comp: ELMT 2433

Level 2 Cert

ELPT 1411	Basic Elec Theory	4	3	2	80
or					
HART 1401	Basic Elec Theory for HVAC				
ELPT 1321	Introduction to Electrical Safety and Tools	-	2	2	-
ELPT 1441	Motor Controls	4	3	2	80
ELPT 2419	Programmable Logic Controllers I	4	3	1	64
ELPT 1457	Industrial Wiring	4	3	2	80
ELMT 2433	Industrial Electronics	4	3	2	80
ELPT 2449	Industrial Automation	4	3	2	80
ELPT 2439	Electrical Power Distribution	4	3	2	80
ELPT 2443	Electrical Systems Design	4	3	2	80
LEAD 1100	Workforce Development w/Critical Tinking	1			
RBTC 2445	Robotic Application, Set-up, and Testing	4	3	2	80
ELPT 2455	Programmable Logic Controllers II	4	3	2	80
RBTC 1405	Robotic Fundamentals	4	3	2	80
		45			864

Verification of Wkpl Comp: ELPT 2443

Industry Credentials:

Remove OSHA 10 certification as discussed above

NFPA 70E (2021): STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE

National Fire Protection Association – NFPA 70E covers standards for electrical safety in the workplace. Throughout this course, you will review the relationship between the Occupational Safety and Health Administration (OSHA) and NFPA 70E. You will also review general NFPA 70E standards and the importance of these standards in maintaining your safety and the safety of others in the workplace.

The purpose of NFPA 70E is to provide a working area for employees that is safe from the risk associated with the use of electricity in the workplace. Using an appropriate mix of risk controls from the hierarchy of risk control methods. **Proposed NFPA 70E certification moved from ELPT 2443 to ELPT 1457;** cost of exam is \$45. (4 Hours)

1. Approve program revisions (if applicable, if no revisions skip)

After review, Ken asked for a motion to approve the program revisions as presented.

Randy Brooks made a motion to approve the program revisions as presented.

Wayne Byrd seconded the motion.

The motion passed and the program revisions were approved as presented.

2. Does the committee have any recommendations for changes 2026-2027

Ken Theimer asked the committee if there were any additional recommended changes for the '26-'27 term. With no additional recommendations, Ken moved to program statistics.

F. Program Statistics:

Ken Theimer asked the faculty to review the program statistics. Dr. Holcomb went on to review the following enrollment and completer data.

Program Statistics:

- Graduates 2022-2023: 22
- Enrollment Summer 2023: 0
- Majors Fall 2023-2024: 51
- Enrollment Fall 2023: 80

After review, Ken moved to Local Demand/Labor Market Outlook.

G. Local Demand/ Labor market Outlook

Ken Theimer invited Bettye Hutchins to review the following data for accuracy, then administered the CLNA (Comprehensive Local Needs Assessment) survey for use in reporting.

Occupation	National Median Wage	State Median Wage	Local Median Wage	Current /Projected Job openings (2022-2032I)	Projected Growth (2022-2032)
Electrical & Electronic Engineering Technologists & Technicians	\$37.11/hr \$77,180/annual	\$33.52/hr \$69,720	\$37.25/hr \$77,480/annual	830 TX	11% TX

*BLS 2024 wage data

After review, Ken moved to evaluation of facilities, equipment, and technology.

H. Evaluation of facilities, equipment, and technology

Ken Theimer asked the faculty to review the following information regarding facilities, equipment, and technology. Dr. Holcomb reviewed recent acquisitions as well as equipment, facilities, and technology needing replacement or repair.

Replacement of one robotic unit (Motoman NX100 & HP3) with YRC 1000 unit and fix or replace overhead door in Lab

Items Purchased by Perkins:

- Mini Machine PLC Trainers and Carrying Cases (24-25)
- Linear Actuators for motion Controls & IQ Link Sensor Trainers (24-25)

Ken asked for any additional suggestions, and with none, then moved to professional development.

I. Professional development of faculty

Ken Theimer asked the faculty to review the following information regarding professional development. Dr. Holcomb reviewed the opportunities he has had in the past year and asked for recommendations for additional trainings.

TACTE conference in Grapevine April 2024, Vernon in-house staff and training from ATC in Universal Robot Operation and Festo Mechlab w/FluidSim training at Palo Alto College, San Antonio, Tx.

Perkins Grant is funding YRC 1000 Maintenance training at Yaskawa Academy in Miamisburg, OH in December 2025 as well as the TACTE Conference in Grapevine, TX in March 2025.

After review, Ken moved on to promotion or publicity.

J. Promotion and publicity (recruiting) for the program

Ken Theimer asked the faculty to review current promotion and publicity practices.

Possible changing focus next year from on the Wilbarger Dual-credit program offered at Vernon College's main campus to traditional college student scheduling. Change is due to lack of participation from the high school students in the county.

After review, Ken asked for any additional recommendations, and with none offered, moved on to review special populations.

K. Serving students from special populations:

Ken Theimer asked the faculty to review the updated definition of special populations and the support services that are available to those who are eligible.

Vernon College is an open-enrollment college. The Proactive Assistance for Student Services (PASS) department offers many services for documented disabilities such as but not limited to quiet testing, longer testing times, interpreters, and special equipment.

Vernon College has a program titled "New Beginnings" for students who qualify to receive transportation, childcare, and/or textbook loans. Perkins funding is also offering assistance to break down barriers such as uniform, supply, and equipment costs.

Peer to Peer mentoring, tutoring (online and in-person), resume building, student success series, and counseling are just a few of the other options/services available to students.

1. Special population's new definitions:
 - a. Individuals with disabilities;
 - b. Individuals from economically disadvantaged families, including low-income youth and adults;
 - c. Individuals preparing for nontraditional fields; 49 male / 2 female ratio

- d. Single parents, including single pregnant women;
- e. Out-of-workforce individuals;
- f. English learners;
- g. Homeless individuals described in section 725 of the McKinney-Vento Homeless Assistance Act (42 U.S.C. 11434a);
- h. Youth who are in, or have aged out of, the foster care system; and
- i. Youth with a parent who—
 - i. is a member of the armed forces (as such term is defined in section 101(a)(4) of title 10, United States Code);
 - ii. is on active duty (as such term is defined in section 101(d)(1) of such title).

After review of special populations, Ken asked if there were any additional recommendations. With no further discussion to be had, Ken adjourned the meeting at 1:33pm.

Recorder Signature Tom Ostovich	Date 10/31/2025	Next Meeting: Fall 2026
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