7/31/2025	DATE	TEC	DIVISION
☑	REQUIRED COURSE	☑	NEW COURSE
☑	ELECTIVE COURSE	☐	REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	EET-088		**TITLE:** *(30 Characters Max)*	Residential Wiring							
SEM CR HRS:	2.0	**Lecture:**	1.0	**Lab:**	2.0	**ICCB Lab:**	2.0	**ECH:**	3.0		
Course Level:	☐ Gen Ed/IAI ☐ Baccalaureate/Non-IAI ☑ Career/Technical ☐ Dev Ed/Not in Degree Audit			**Clinical Practicum:**	0.0	**Work-based Learning:**	0.0	**WBL ECH:**	0.0		
Course PCS & CIP:	12 - 46.0302		**IAI Code:**	N/A				**Contact Hours (Minutes/Week)**			
Repeatable (Y/N):	N	**Pass/Fail (Y/N):**	N	**Variable Credit (Y/N):**	N	**Min:**		**Max:**		**16 Wks**	150	**8 Wks**	300
Prerequisites:	None										
Corequisites:	None										
Catalog Description: (40 Word Limit)	Hands-on course introducing safe residential wiring practices, including outlets, switches, circuits and tools. Students apply electrical theory, interpret plans and build basic circuits to meet code and safety standards. Designed for construction and building trades students.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Electrical safety and lockout/tagout	3	2		
Basic electrical concepts and troubleshooting	3	2		
Tools and equipment use	2	3		
Switch types and terminations	2	8		
Outlet types and terminations	2	8		
Circuit design and function	3	7		
TOTAL	15	30	0	0

EVALUATION							
QUIZZES	☑	**EXAMS**	☑	**ORAL PRES**	☐	**PAPERS**	☐
LAB WORK	☑	**PROJECTS**	☑	**COMP FINAL**	☑	**OTHER**	☐

COURSE MATERIALS		
TITLE:	Instructor resources	HBI Handbook
AUTHOR:		
PUBLISHER:		
VOLUME/EDITION/URL:		
COPYRIGHT DATE:		

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Electrical safety and lockout/tagout	5	1. Identify and demonstrate correct use of PPE and safety gear for electrical work. 2. Apply lockout/tagout procedures during maintenance and troubleshooting activities
Basic electrical concepts and troubleshooting	5	1. Apply Ohm's Law and Watt's Law to calculate current, voltage and resistance. 2. Diagnose basic circuit faults and identify causes of electrical failure.
Tools and equipment use	5	1. Identify and use basic electrical tools such as multimeters, wire strippers and voltage testers. 2. Demonstrate safe and effective use of testing meters on energized and de-energized systems.

Switch types and terminations	10	1. Differentiate between single-pole, double-pole, 3-way and 4-way switches. 2. Wire and test various switch configurations using standard residential procedures.
Outlet types and terminations	10	1. Install and test standard outlets, including GFCI, 220-volt and multi-gang receptacles. 2. Interpret NEC guidelines related to outlet placement and circuit protection.
Circuit design and function	10	1. Construct and test lighting and outlet circuits in parallel and series configurations. 2. Implement daisy-chain wiring and GFCI protection strategies in layout designs
	45	

Outcomes*	Outcome Title	At the successful completion of this course, students will be able to:
Course Outcome 1	Theory Code Stand	Apply fundamental theories and code standards to real-world residential wiring situations.
Course Outcome 2	Circ Switch Outlet	Install residential circuits, switches and outlets safely using industry-standard tools and methods.
Course Outcome 3	Electrical Plans Lab	Interpret and implement basic electrical plans, layouts and schematics in a hands-on lab environment.
Primary Laker Learning Competency	Creative Thinking & Problem Solving: Students think creatively to solve problems.	
Secondary Laker Learning Competency	Professional Skills & Ethics: Students demonstrate professional skills and ethical accountability.	

**Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.*