

Expect Excellence Apprenticeship Program

Level 4 – Semester 2 (Course 4B)

This course is designed to prepare apprentices for the final year competency exam and state journeyman licensing exam. Emphasis is placed on advanced electrical theory, NEC article review, and practice testing. Students will strengthen their knowledge of services, feeders, grounding and bonding, overcurrent protection, motors, and transformers, while also applying problem-solving skills through exam-style questions. Coursework combines theoretical instruction, NEC reference application, and simulated testing conditions.

Course Objectives

- Demonstrate mastery of electrical fundamentals, including Ohm's Law, Watt's Law, series/parallel circuits, alternating current, power factor, and the formula wheel.
- Apply NEC requirements to services, feeders, overcurrent protection, grounding and bonding, motors, and transformers.
- Strengthen understanding of special occupancies, equipment, and selected NEC articles frequently encountered on licensing exams.
- Develop problem-solving skills and exam readiness through timed practice exams and NEC code reference exercises.
- Prepare for the Year 4 Competency Exam and State Journeyman Exam with confidence and accuracy.

Course Topics and Hours

Topic	Hours	Description
Orientation & Curriculum Review	2	Review of program expectations, assignment book, and study structure
Electrical Exam Preparation – Theory	28	Units covering Basic Math, Ohm's Law, Watt's Law, Series/Parallel Circuits, AC Fundamentals, Power Factor, Motors, Generators, Relays, Transformers, Overcurrent Protection, Formula Wheel
Electrical Fundamentals Exam	2	Timed exam covering all Module 1 theory content
NEC Article Review	18	Articles 110, 210, 215, 230, 240, 250 (Grounding & Bonding – General and Separately Derived Systems)
Practice Testing & Review	2	Practice exam, flex/review day, and discussion of results

Total Contact Hours: 52

Instructional Method

The Expect Excellence Apprenticeship Program follows the Mike Holt Exam Preparation curriculum, along with NEC reference materials. Classes are delivered virtually via Zoom. Students are required to keep their cameras on and remain visible throughout each class session. Instructors will take roll at the beginning, middle, and end of each session, and student participation is required to ensure accountability. Assignments and practice exams are given throughout the semester and are graded and recorded through the program's Learning Management System (LMS), D2L.