

Course Code: ECJ 117

Course Title: IBEW Apprenticeship I

Department: Applied Sciences and Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 46.0399

Repeatability: 0

Credit Hours

Catalog Notation: 0-20-2

Credit Hour Distribution:

Lecture: 0

Lab: 20

Clinical: 0

Total: 2

General Course Information

Catalog Description

Electrician internship on-the-job component of Electrician Apprenticeship program: work relating to the wiring of residential, commercial, industrial, and/or specialized electrical systems. All on-the-job work-related activities performed under direct supervision of a journeyman.

General Course Objectives

Work relating to the wiring of residential, commercial, industrial and/or specialized electrical systems. All on-the-job work-related activities performed under direct supervision of a journeyman. The on-the-job training portion of the apprenticeship will allow the apprentice to be given instruction, guidance, supervision, and experience in order to develop the skills and to learn the knowledge necessary for complete mastery of the electrician trade encompassing the wiring of residential, commercial, and industrial buildings and equipment and of specialized electrical systems. All such on-the-job work will be performed under the direct supervision of a journeyman. Related in-class instruction will be a component of the apprenticeship.

Minimum Placement Levels

English

None

Reading

None

Math

None

Prerequisites

Credit in ECJ 116

Admission into the IBEW Apprenticeship School

Methods of Evaluation

The apprentice is required to work in the on-the-job training portion of the apprenticeship. The apprentice will be evaluated and graded on a monthly basis for their performance on-the-job by an experienced electrician journeyman. All lab hours are performed in the field and are considered to be work experience unless otherwise indicated per IBEW601 NJATC.

Instructional Materials and Additional Supplies

IBEW-NECA: National Electrical Course for Apprentices Inside Wireman - First Year, NJATC

Course Content

General Learning Outcomes (GLOs)

- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Competency Mastery in the Wiring of Residences, Duplexes, and Small Apartment Buildings	1. Develop skills and knowledge necessary to complete on-the-job training portion of the apprenticeship. 2. Demonstrate the necessary shop work and preparation required to complete assignments or tasks. 3. Receive monthly on-the-job performance evaluation from an experienced electrician journeyman.	0	75	0
Competency Mastery in the Wiring of Public Commercial, School, and Hospital Buildings; Installation and Repair of All Equipment Therein	1. Develop skills and knowledge necessary to complete on-the-job training portion of the apprenticeship. 2. Demonstrate the necessary shop work and preparation required to complete assignments or tasks. 3. Receive monthly on-the-job performance evaluation from an experienced electrician journeyman.	0	75	0
Competency Mastery in the Wiring of All Industrial Buildings and Equipment; Maintenance, Repair, and Alteration of Such Buildings and Equipment	1. Develop skills and knowledge necessary to complete on-the-job training portion of the apprenticeship. 2. Demonstrate the necessary shop work and preparation required to complete assignments or tasks. 3. Receive monthly on-the-job performance evaluation from an experienced electrician journeyman.	0	75	0
Competency Mastery in the Wiring of Specialized Systems such as Sound, Data Transmission, Telephone, Fire Alarm, Fiber Optics, Energy Management, Closed Circuit Television, Programmable Controllers, and Intercom Call Systems	1. Develop skills and knowledge necessary to complete on-the-job training portion of the apprenticeship. 2. Demonstrate the necessary shop work and preparation required to complete assignments or tasks. 3. Receive monthly on-the-job performance evaluation from an experienced electrician journeyman.	0	75	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
0	300	0