

Residential Electrician Technical College Program Approval

Residential PSEP Policy Item #12 (Students rules to become licensed as a Residential Electrician)

12. ON THE JOB TRAINING (OJT) – RESIDENTIAL ELECTRICIAN

A. AREAS OF CONCENTRATION FOR OJT

- 1) Preliminary Work –
 - a) Learning the names and uses of the equipment used in the trade: kind, size, and use of cable, wire, boxes, conduits and fittings, switches, receptacles, service switches, cutouts, etc.
 - b) Learning the names and uses of the various tools used in assembling this material, care of these tools, and other instructions necessary to familiarize the apprentice with the materials and tools of the trade.
- 2) Rough In Wiring-
 - a) Assisting in getting material from stock room. Loading truck and equipment on-the-job.
 - b) Laying out the various outlets, switches, receptacles, and other details of the job, from blue prints or by direction of the superintendent of construction.
 - c) Cutting wire, cable, conduit, and raceway: threading and reaming conduit, boring and cutting chases under the direction of an electrician.
 - d) Installing various kinds of wires, cables, and conduits in accordance with Requirements.
 - e) Assisting electricians in pulling wires, attaching wires to fish tape and keeping wires from kinks and abrasions.
 - f) Connecting conductors to switches, receptacles, or appliances with proper methods of splicing, soldering, and taping.
 - g) Installing service switches or load centers; and subsequently, feeders, and fastening up these parts, running raceways, and pulling conductors, under the direction of an electrician.
 - h) Assisting in preparing lists of materials used, including names, number of pieces, or number of feet, etc., for office records.
 - i) Loading unused material and cleaning-up of job area.
 - j) Installing rigid conduit, electric metallic tubing, BX armored cable wire molds on all types of heavy electrical equipment and major size service entrance

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- 3) Finish Work-
 - a) Connecting and setting switches, receptacles, plates, etc.
 - b) Installing and connecting various kinds of electrical utilization equipment.
 - c) Assisting electricians in installation and completion of work in accordance with the rules and regulations of the National Fire Protection Association and special local regulations; proper sizes of wires, service, conduits, etc.

- 4) Special Systems
 - a) Wiring of specialized systems to include: sound systems, CRT and data systems, telephones, fire alarm systems, fiber optics, energy management systems, closed circuit TV.

- 5) Trouble Shooting and Service Work-
 - a) Repairing all kinds of electrical work.
 - b) Checking out trouble and making repairs under supervision of an electrician.
 - c) Tracking the polarity of conductors and devices.
 - d) Testing the circuit for grounds and shorts and locating and correcting job defects.

- 6) Motor Installation and Controls-
 - a) Installing over-current devices.
 - b) Checking for proper installation and rotation.
 - c) Installing replacements motors.
 - d) Analyzing motor circuits and troubleshooting.
 - e) Installing pushbuttons, pilot lights, relays, timing devices, and interlocking controls.
 - f) Wiring all types (gas, oil, stoker, etc.) heating equipment.
 - g) Installing wiring and controls for air conditioning.

- B. ON THE JOB TIME REQUIREMENT – RESIDENTIAL ELECTRICIAN
 - 1) For the Residential Electrician
 - a) The student must perform and document 4000 hours of OJT in the 6 required fields within 3 years from the time he/she completes the post-secondary electrical program, to be eligible to test for the State of Iowa sponsored Residential license. Appeals can be made to the Electrical examining board on a case-by-case basis for hardship circumstances.
 - b) The hours-requirement for the 6 areas of concentration are as follows:
 - 1) Preliminary Work – 300 hours minimum
 - 2) Rough In Wiring – 1200 hours minimum
 - 3) Finish Work- 750 hours minimum

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- 4) Trouble Shooting and Service Work- 500 hours minimum
- 5) Special Systems -- 200 hours minimum
- 6) Motor Installation and Controls – 200 hours minimum

C. DOCUMENTATION OF OJT – RESIDENTIAL ELECTRICIAN

- 1) The Unclassified person working toward the 4000 hours of OJT is the sole individual responsible for tracking his/ her hours, as well as providing appropriate and accurate monthly documentation of the required 4000 hours to the Electrical Examining Board. The documentation of the 4000 hours must accompany the application for a Residential Electrician license.
- 2) The hours must be documented in the format the board has established.
- 3) The forms must be signed by both the Unclassified person, and the master supervising the work.
- 4) Hours that are not signed by both the Unclassified person and the master will receive no credit toward the 4000 hour requirement.
- 5) Documentation of all required hours must be submitted with an application to test for the Residential Electrician license. The application must be accompanied by an affidavit, signed by the applicant and each employer/master electrician under which the hours used for application have been obtained. The OJT hours submitted may be subject to an audit by the Board or their designees.
- 6) At any time during the OJT period, an unclassified person may be asked by the Board to produce documentation of the hours he/she has accumulated, for the purpose of performing audits.

D. LICENSE REQUIREMENT DURING OJT.

- 1) The student must be registered with the State of Iowa as an “Unclassified Person,” and follow all the procedures required during the OJT requirement, in order to receive credit to qualify for testing.
- 2) If at any time the Unclassified license is suspended, revoked, or denied for renewal, the Board may prohibit future licensure of that person in Iowa. If the Unclassified person’s license is suspended or revoked in another state, the Unclassified person has a duty to report that action to the Iowa Electrical Examining Board. The Board may prohibit that person from being licensed in Iowa.

E. SUPERVISION DURING OJT – RESIDENTIAL ELECTRICIAN

- 1) In order to receive credit toward the 4000 hours of required OJT, the student must work in the State of Iowa under the supervision of a State of Iowa Licensed Residential Electrician

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or State of Iowa Residential Master or State of Iowa Licensed Journeyman Electrician (Class A/B) or a State of Iowa licensed Master Electrician (Class A/B) for the time accumulated to be credited. The person who does the supervision must not be under any disciplinary action, or pending any disciplinary action by the Electrical Examining Board. Direct supervision may be provided by a State of Iowa Licensed Residential Electrician or Iowa Licensed Journeyman Electrician (Class A/B), but the documentation regarding hours of work must be signed by a master electrician.

- 2) The unclassified person must be licensed by the State of Iowa as an "Unclassified Person" during all times of OJT in order to receive credit. The Unclassified person must remain in good standing, and not be the recipient of any discipline from the Electrical Examining Board. The Unclassified person must promptly report any disciplinary complaints or actions taken in another jurisdiction, which would justify discipline by the Iowa Electrical Examining Board in similar circumstances occurring in Iowa.
- 3) The unclassified must be supervised following the 3:1 ratio, as stated in Iowa Code section 103.15, paragraph 3. The unclassified person and the supervisor of the OJT also are responsible for knowing and following the practices of any and all sections of Iowa Code chapter 103, Electricians and Electrical Contractors.