

Electrician Fact Sheet

Did you know ?

That you can start as a helper electrician with little or no experience and make \$10 to \$12 per hour?

That you can use your related military experience and training towards an electrician's license?

That electrical work experience that you did prior to your military service may be used to fill some of your training and experience requirements for an electrical license?

That you may only need one or two courses to be able to sit for your Journeyman, Master or Limited electrical license?

That most of the required courses are available online or at your local community college?

Types of Electrical Licenses

Helper
Apprentice
Journeyman

Master
Limited License

- Water pumps
- Outdoor signs
- Gasoline Dispensing
- Traffic Signals
- House Wiring (one and two family)
- Refrigeration
- Low Energy
- Crane Technician

Helper Electrician's Requirements for Licensure

- A person must;
 - Be at least 16 years of age **and**
 - Submit application and fee

Apprentice Electrician's Requirements for Licensure

- A person must;
 - Be enrolled in the State Apprenticeship and Training Council and must show proof of enrollment **and**
 - Submit application and fee

Journeyman Electrician's Requirements to sit for Exam

- An applicant who is;
 - A graduate of an accredited regional applied technology high school 2-year electrical program **or**
 - A graduate of an accredited community college electrical program **or**
 - An electrical apprentice registered with the Maine State Apprenticeship and Training Council **or**
 - Has completed class hours in courses as follows;
- 225 hours consisting of 45 hour courses each in;
- Electricity I (DC circuits or basic electrical theory)
 - Electricity II (AC circuits or intermediate or advanced electrical theory)
 - Math I (Post-secondary math including applied or trade math)
 - Controls I (Residential or practical wiring)
 - Current National Electrical Code Course
- And 351 hours of electives, all trade related courses or a minimum of 225 hours of trade-related courses and 135 hours of degree-related courses in;
 - Mathematics
 - Science
 - Business
 - Human Relations
 - Communications
- A person must;

- Complete at least 8000 hours of service as an apprentice or helper electrician **or**
- Be a graduate of an accredited regional applied technology high school 2-year electrical program and have worked
- For 8000 hours in the field of electrical installations under the supervision of a master electrician or the equivalent **or**
- Be a graduate of an accredited community college electrical program or a vocational-electrical program of the Department of Corrections and have worked;
- For 4000 hours in the field of electrical installations under the supervision of a master electrician or the equivalent **or**
- Be an electrical apprentice registered with the State Apprenticeship and Training Council and have worked
- The 8000-hour approved program

Master Electrician's Requirements to sit for Exam

- 450 hours consisting of 45 hour courses each in;
 - Electricity I (DC circuits or basic electrical theory)
 - Electricity II (AC circuits or intermediate or advanced electrical theory)
 - Electronics I (power electronics, communication electronics, etc.)
 - Math I (post-secondary math including applied or trade math)
 - Controls I (residential or practical wiring)
 - Controls II (industrial wiring or motor controls)
 - Motors (electrical rotating machines)
 - Blue Print Reading/Drafting/Technical Drawing
 - Transformers
 - Current National Electrical Code Course
- 126 hours in any of the following courses;
 - Mathematics
 - Science
 - Business
 - Human Relations
 - Communications
- A person must;
 - Complete at least 4000 hours of service as a journeyman electrician **or**
 - At least 12,000 hours of experience in electrical installations

Limited Electrician's License in Crane Technician, Educational and Experience Requirements to sit for Exam

- A person must have 45 hours courses in;
 - Electricity I (DC circuits or basic electrical theory)
 - Controls I (residential or practical wiring)
 - Current National Electrical Code Course

- A person must have;
 - 2000 hours of work experience

Limited Electrician's License in Gasoline Dispensing, Educational and Experience Requirements to sit for Exam

- A person must have 45 hour courses in;

- Electricity I (basic electricity)
- Controls I (residential or practical wiring)
- Current National Electrical Code Course

- A person must have;

- 2000 hours of work experience
 - With at least 1000 hours of which is in gasoline dispensing equipment installation

Limited Electrician's License in House Wiring, Educational and Experience Requirements to sit for Exam

- A person must have 45 hour courses in;
 - Electricity I (DC circuits or basic electrical theory)
 - Electricity II (AC circuits or intermediate or advanced electrical theory)
 - Controls I (residential or practical wiring)
 - Blueprint Reading
 - Current National Electrical Code Course

- A person must have;
 - 4000 hours of work experience
 - With at least 2000 hours of which is in house wiring installations

Limited Electrician's License in Low Energy(including fire alarms),
Educational and Experience Requirements to sit for Exam

- A person must have 45 hours courses in;
 - Electricity I (DC circuits or basic electrical theory)
 - Electricity II (AC circuits or intermediate or advanced electrical theory)
 - Controls I (residential or practical wiring)
 - Electronics I (power electronics, communication electronics etc.)
 - Blueprint Reading
 - Current National Electrical Code Course

- A person must have;
 - 4000 hours of work experience
 - with at least 2000 hours of which is in low energy installations
 - A person whose electrical work experience was obtained prior to June 24, 1987 is not required to sit for the examination. The person must prove 4000 hours of work experience in the installation of low energy electronics.

Limited Electrician's License in Outdoor Signs, Educational and Experience Requirements to sit for Exam

- A person must have 45 hour courses in;

- Electricity I (basic electricity)
- Controls I (residential or practical wiring)
- Current National Electrical Code Course

- A person must have;

- 2000 hours of work experience
 - With at least 1000 hours of which is in outdoor signs and sign lighting installations

Limited Electrician's License in Refrigeration, Educational and Experience Requirements to sit for Exam

- A person must have 45 hour courses in;
 - Electricity I (DC circuits or basic electrical theory)
 - Electricity II (AC circuits or intermediate or advanced electrical theory)
 - Controls I (residential or practical wiring)
 - Controls II (industrial wiring and motor controls)
 - Motors/Transformers
 - Current National Electrical Code Course

- A person must have;
 - 6000 hours of work experience
 - with at least 3000 hours of which is in refrigeration installations
 - A graduate of a community college electrical program in refrigeration or from an accredited institution is credited with 4000 hours of experience upon graduation

Limited Electrician's License in Traffic Signals, Educational and Experience Requirements to sit for Exam

- A person must have 45 hours courses in;
 - Electricity I (basic electricity)
 - Electronics I/Controls I (residential or practical wiring)
 - Current National Electrical Code Course

- A person must have;
 - 2000 hours of work experience
 - With at least 1000 hours of which is in traffic signal installations

Limited Electrician's License in Water Pumps, Educational and Experience Requirements to sit for Exam

- A person must have 45 hours courses in;
 - Electricity I (basic electricity)
 - Motors/Controls (electrical rotating machines)
 - Current National Electrical Code Course

- A person must have;
 - A total of 2000 hours of electrical work experience
 - With at least 1000 hours of which must be in water pump installations