

GLTS

Greater Lawrence Technical School

Adult Workforce Development

Apprentice Electrical Courses

Levels 1-4

Masters Course to be

Offered if there is demand.

Are you
ready for the
Journeyman
Electrician's
Exam?

Program Information

Level 1 through 4

5:30 p.m. to 8:30 p.m.

2 evenings a week

September - April

Enrollment is \$1,100.00 per year
(150 hours)

For more information
and to register visit

<https://www.glts.net/Page/4713>

For questions contact
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Greater Lawrence Technical School
57 River Road
Andover, MA 01843

Electrical Level 1 (150 Hours)

This course introduces students to the National Electrical Code as well as the Massachusetts Electrical Code along with relative learning objectives. The Level 1 class begins with the basics of electricity so students will have an understanding of the concepts required to move onto Level 2.

Learning Objectives: Introduce electricity concepts, introduce AC/DC theory, review jobsite and electrical safety, describe licensing requirements and forms, introduce the NEC, describe the structure of the NEC and how to navigate it, introduction of wiring methods, explain devices and their functions, explain different cabling methods, review article 90, review article 110.

Electrical Level 2 (150 Hour)

This course expands students' knowledge of the National Electrical Code as well as the Massachusetts Electrical Code from Level 1. Level 2 will begin with a review of Level 1 to prepare students for this course and onto Level 3.

Learning Objectives: Build on the understanding of the NEC, review code changes to the NEC, review the adaptation of the MEC 527 CMR 12.00, build on the understanding of grounding and bonding, learn conductor types and ratings, develop an understanding of the different raceways used, expand the understanding of the proper use and sizing of boxes, expand on the understanding of different wiring methods.

Electrical Level 3 (150 Hour)

This course expands students' knowledge of the National Electrical Code as well as the Massachusetts Electrical Code from Level 2. Level 3 will begin with a review of Level 2 to prepare students for this course and onto Level 4.

Learning Objectives: Review and enhance knowledge of series and parallel circuits and their combinations, review three phase network and services, discuss power factor and how it relates to cost, enhance training on branch circuits and feeder calculations, introduce voltage drop calculations, discuss various fire alarm components and how they work as a system, discussion of swimming pools and spas regarding safety and proper wiring, discussion of fiber optic and communication cabling, review electric motors for proper sizing and wiring, perform calculations and formulas relating to electrical installations.

Electrical Level 4 (150 Hour)

This course expands students' knowledge of the National Electrical Code as well as the Massachusetts Electrical Code from Level 3. Level 4 will begin with a review of Level 3 to prepare students for the final course needed before taking the Journeyman Electrician's Exam.

Learning Objectives: Learn to calculate feeder/branch circuits for cooking appliances and dryer equipment as well as calculating electrical service using the standard and optional method, learn to properly size various motor requirements, discussion of various requirements for special occupancies, demonstrate the use of NFPA 72, learn the various laws that pertain to apprentice and licensed journeyman as well as the laws and regulations for running a successful business and the day-to-day operations of an electrical business.

