

Program Description

Mike Holt's Apprenticeship Training Program

Mike Holt's Apprenticeship Training Program has been developed to provide apprentices with the knowledge required to become journeyman electricians. This four year program utilizes Mike's industry leading electrical texts that are proven to produce some of the best electricians in the industry today. Supplemented with his instructional support material such as presentations, videos, and simulated exams, this program is tailored to meet the needs of various types of learners.

This program totals 658 clock hours logically structured to create a natural progression of electrical subjects. From day one strong emphasis is placed on safe work practices and is maintained throughout the program. The first year covers electrical fundamentals which are essential in understanding specific electrical equipment operation and some complex code requirements. Blueprint reading, calculations, code requirements, and wiring methods are discussed in each subsequent year. Estimating and industrial applications are covered in detail in the final year.

Upon successful completion students are expected to be eligible (*also have the required working hours*) and able to pass their journeyman's exam. Journeyman electricians do a wide variety of electrical tasks in many different environments. From system design, to installations, and even managing and training apprentices, journeyman electricians play a vital role in the electrical industry.

Resources

Program Textbook List

Basic Electrical Theory, 2nd. Leesburg: Mike Holt Enterprises, Inc, ISBN 1-932685-12-X, 2007

Basic Motor Controls. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-32-9, 2009

Electrical Estimating. Leesburg: Mike Holt Enterprises, Inc, ISBN 0-9710307-8-2, November 2001

NEC Exam Preparation. 2008. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-932685-36-7, 2008

Understanding the NEC Volume 1. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-33-6, 2008

Understanding the NEC Volume 1 Workbook. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-45-9, 2008

Understanding the NEC Volume 2. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-34-3, 2008

Understanding the NEC Volume 2 Workbook. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-46-6, 2008

Understanding the NEC Requirements for Grounding versus Bonding. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-38-1

Understanding the NEC Requirements for Limited Energy and Communication Systems. Leesburg: Mike Holt Enterprises, Inc, ISBN 1-932685-37-5, 2008

Business Management Skills Workbook. Leesburg: Mike Holt Enterprises, Inc, ISBN 1-932685-25-1, 2007

101 Essential NEC Rules. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-49-7, 2008

Understanding NEC Requirements for Photovoltaic Systems. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-00-0, 2010

Power Quality. Leesburg: Mike Holt Enterprises, Inc, ISBN 978-1-932685-00-0, 2009

National Electrical Code 2008. Batterymarch Park: National Fire Protection Association, ISBN 978-087765790-3, 2007

Printreading Based On the 2008 NEC. 2008. Homewood: American Technical Publishers, Inc, ISBN 978-08269-1567-2, 2008 R.T. Miller

Resources

Program Presentations

OSHA 10 Hour Training (OSHA.gov)

- Introductions to OSHA
- Electrical Safety
- Fall Protection
- Excavations
- Cranes
- Materials, Handling, Use, and Disposal
- Tools – Hand and Power
- Personal Protective Equipment (PPE)
- Scaffolds
- Stairways and Ladders

Basic Electrical Theory

- Chapter 1
- Chapter 2
- Chapter 3
- Chapter 4
- Chapter 5
- Chapter 6
- Annex A – Grounding Theory

Understanding the NEC Vol. 1

- Chapter 1 90-110
- Chapter 2 200-285
- Chapter 3 300-314
- Chapter 3 320-392
- Chapter 4 400-450

Understanding the NEC Vol. 2

- Chapter 1 90-110
- Chapter 5 500-590
- Chapter 6 600-702
- Chapter 7 725-802

Exam Preparation

- Chapter 2, Unit 5
- Chapter 2, Unit 6
- Chapter 2, Unit 7
- Chapter 2, Unit 8
- Chapter 2, Unit 9
- Chapter 3, Unit 10
- Chapter 3, Unit 11
- Chapter 3, Unit 12

Grounding versus Bonding

- Part 1
- Part 2

Electrical Estimating

Understanding Basic Motor Controls

Resources

Program Videos	# of Discs
Basic Electrical Theory	3
How to Use the NEC	1
General Requirements, Circuits and Protection	2
Wiring Methods	2
Equipment for General Use	1
Grounding versus Bonding	2
Special Occupancies	1
Special Equipment	1
Electrical Estimating	2
Understanding Basic Motor Controls	2
<i>Exam Preparation:</i>	
Raceway and Box Calculations	1
Conductor Sizing and Protection	1
Motor and Air Conditioning Calculations	1
Voltage Drop Calculations	1
Dwelling Unit Calculations	1
Multifamily Dwelling Calculations	1
Commercial Calculations	1
Transformer Calculations	1

Program Overview

Direct-Current Fundamentals & Residential Wiring

First Year

Topic	Hours
Orientation	3.50
Math	3.50
Basic Wiring & Materials	7.00
Direct-Current Fundamentals	38.50
Mathematics	7.00
Intro to the <i>NEC</i>	3.50
General Requirements	17.50
Wiring & Protection	31.50
Blueprint Reading	7.00
Practical Application	14.00
Quarterly Exam Review & Discussion	14.00
Quarterly Final Examination	14.00
Fourth Quarter Exam Review	3.50
Total	164.50

Alternating-Current Fundamentals & Commercial Wiring

Second Year

Topic	Hours
Orientation	3.50
Safety (<i>PPE</i>)	3.50
Alternating-Current Fundamentals	31.50
Grounding (<i>Article 250</i>)	17.50
Wiring & Protection	3.50
First Aid	3.50
Wiring Methods	45.50
Blueprint Reading	7.00
Practical Application	17.50
Quarterly Exam Review & Discussion	14.00
Quarterly Final Examination	14.00
Fourth Quarter Exam Review	3.50
Total	164.50

Program Overview

Motors, Controls, & Industrial Wiring Third Year

<u>Topic</u>	<u>Hours</u>
Orientation	3.50
Safety (<i>PPE</i>)	3.50
Flexible Application	10.50
Equipment for General Use	24.50
Grounding vs. Bonding	14.00
First Aid (<i>CPR</i>)	3.50
Leadership	7.00
Special Occupancies	7.00
Special Equipment	14.00
Special Conditions	10.50
Motor Control	21.00
Blueprint Reading	10.50
Practical Application	3.50
Quarterly Exam Review & Discussion	14.00
Quarterly Final Examination	14.00
Fourth Quarter Exam Review	3.50
Total	164.50

Special Systems & Calculations Fourth Year

<u>Topic</u>	<u>Hours</u>
Orientation	3.50
Safety (<i>PPE</i>)	3.50
Motor Control	7.00
Flexible Application	17.50
Fire Alarm	10.50
Lighting & Troubleshooting	3.50
Calculations	52.50
Theory & <i>Code</i> Review	28.00
Quarterly Exam Review & Discussion	14.00
Quarterly Final Examination	21.00
Fourth Quarter Exam Review	3.50
Total	164.50