

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 1: 1st Semester

Topic: **Introduction/Safety/Tools**

- Material:** Handouts downloaded from Web
- Basic Electrical Safety (page 25+)
 - Basic Electrical Safety PowerPoint
 - NIOSH Electrical Safety
 - OSHA Construction eTools
 - ESFI Workplace Safety Handout
 - OSHA Regulation 1926.405

Topic: **Electrical Fundamentals DC Part 1 & 2**

- Matter
- Electron Theory
- Magnetism
- Electricity
- Electro-Magnetism
- Uses of Electro-Magnetism

Material: [Mike Holt's Guide to Electrical Theory](#)

Topic: **Conduit Bending-Basics**

Material: Ideal Bender Video and Manual (supplied from Ideal)

Topic: **Basic Electrical Wiring**

Material: The Complete guide to Home Wiring (2005) by Black & Decker

Topic: **Safety**

Material: Presented by Project Worksafe (OSHA –10 Training)

***REVIEW & DISCUSSION
FINAL SEMESTER ONE EXAM***

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 1: 2nd Semester

Topic: Introduction/Safety/Tools Review

Material: Handouts from 1st Semester

Topic: NEC Introduction (90)

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)

Topic: NEC Definitions (100)

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: Requirements for Electrical Installations (110)

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: Grounded Neutral Conductors (200)

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: Branch Circuits (210)

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: Electrical Fundamentals DC Part 1 & 2

- The Electrical Circuit
- Math
- Electrical Formulas
- Series Circuits
- Parallel Circuits
- Series-Parallel Circuits
- Multiwire Circuits

Material:

[Mike Holt's Guide to Electrical Theory](#)

Topic:

Grounding Theory

Material:

[Mike Holt's Understanding the NEC Requirements for Grounding vs. Bonding](#)

***REVIEW & DISCUSSION
FINAL SEMESTER TWO EXAM***

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 2: 1st Semester

Topic: **Introduction/Safety**

Material: Handouts downloaded from Web

- Handbook for Electrical Safety 2nd edition by Bussmann Safety Basics

Topic: **NEC Chapter 3 – Wiring Methods**

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: **Electrical Fundamentals AC Part 1 of 2**

- The Electrical System
- Protection Devices
- Alternating Current

Material: [Mike Holt's Guide to Electrical Theory](#)

Topic: **Conduit Bending-Advanced**

Material: Handout—Conduit Bending Theory

REVIEW & DISCUSSION
FINAL SEMESTER ONE EXAM

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 2: 2nd Semester

Topic: **Introduction/Safety**

- Material:** Handouts
- Workplace Safety by ESFI
 - Basic Electrical Safety (starting pg 25)

Topic: **Electrical Fundamentals AC Part 1 of 2**

- Capacitance
- Induction
- Power Factor and Efficiency
- Motors
- Generators
- Basic Transformers

- Material:** Basic Electrical Safety PowerPoint Handout
- [Mike Holt's Guide to Electrical Theory](#)

Topic: **NEC Chapter 2**

- Material:** [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: **Introduction/Safety (Grounding)**

- Material:** [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: **TVSS**

- Material:** Handout from Mike Holt - Whole House Power Quality

Topic: **NEC Chapter 4**

- Material:** [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

REVIEW & DISCUSSION
FINAL SEMESTER TWO EXAM

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 3: 1st Semester

Topic: **NEC Chapter 4 - Equipment**

Material: [Mike Holt's Understanding the NEC Volume 1 Textbook](#)
[Mike Holt's Understanding the NEC Volume 1 Workbook](#)
NEC Code Book

Topic: **NEC Chapter 5 – Special Occupancies**

Material: [Mike Holt's Understanding the NEC Volume 2 Textbook](#)
[Mike Holt's Understanding the NEC Volume 2 Workbook](#)
NEC Code Book

Topic: **Blueprint Reading**

Material: Printreading Based on the 2005 NEC

REVIEW & DISCUSSION
FINAL SEMESTER ONE EXAM

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 3: 2nd Semester

Topic: **Grounding (NEC 250)**

Material: [Mike Holt's Understanding the NEC Requirements for Grounding vs. Bonding Textbook](#)
[Mike Holt's Understanding the NEC Requirements for Grounding vs. Bonding DVD](#)

Topic: **NEC Chapter 5 – Special Occupancies**

Material: [Mike Holt's Understanding the NEC Volume 2 Textbook](#)
[Mike Holt's Understanding the NEC Volume 2 Workbook](#)
NEC Code Book

Topic: **NEC Chapter 6 – Special Equipment**

Material: [Mike Holt's Understanding the NEC Volume 2 Textbook](#)
[Mike Holt's Understanding the NEC Volume 2 Workbook](#)
NEC Code Book

Topic: **NEC Chapter 7 – Control and Signaling Circuits**

Material: [Mike Holt's Understanding the NEC Volume 2 Textbook](#)
[Mike Holt's Understanding the NEC Volume 2 Workbook](#)
NEC Code Book

Topic: **NEC Chapter 8 – Communications (Telephone, CATV, etc)**

Material: [Mike Holt's Understanding the NEC Volume 2 Textbook](#)
[Mike Holt's Understanding the NEC Volume 2 Workbook](#)
NEC Code Book

Topic: **Motor and Lighting Control**

Material: [Mike Holt's Motor Control & Signaling Circuits Book/DVD-](#)
**coming soon-under revision*

REVIEW & DISCUSSION
FINAL SEMESTER TWO EXAM

MIKE HOLT'S APPRENTICESHIP OUTLINE

For a copy of the complete correlation with lesson plans or for a complimentary copy of a Mike Holt book please call our office at 866.632.2633.

Year 4: 2nd Semester

Topic: **Electrician's Math/Basic Electrical Formulas**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Electrical Circuits**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Understanding Alternating Current**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Motor/Transformer Basics**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Raceway Calculations**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Box Fill Calculations**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Junction Box Sizing**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Conductor Sizing and Protection**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Motor Conductor and Protection Sizing**

Material: [Mike Holt's Electrical Exam Preparation Textbook](#)

Topic: **Voltage Drop Calculations**

Material:

[Mike Holt's Electrical Exam Preparation Textbook](#)

Topic:

Single Family Load Calculations

Material:

[Mike Holt's Electrical Exam Preparation Textbook](#)

REVIEW & DISCUSSION
Journeyman Simulated Exam