

6. **Student Learning Outcomes** (Identify 1-6 expected learner outcomes using active verbs.)

Upon successful completion of the course, the student will be able to:

Recognize the attributes of fire alarm systems
Recognize the attributes of Boolean Algebra
Recognize and apply wiring and wiring methods for fire alarm systems
Recognize the attributes of low voltage security and telephone systems
Recognize the attributes of structured cabling system
Recognize the attributes of generated power and distribution

7. **Course Objectives** (Identify specific teaching objectives detailing course content and activities. *For some courses, the course objectives will be the same as the student learning outcomes. If this is the case, please simply indicate this in this section).*

Apply the knowledge and skills necessary to perform the job assignments expected of a fifth year inside wireman apprentice.

8. **Course Content** (Brief but complete topical outline of the course that includes major subject areas [1-2 pages]. Should reflect all course objectives listed above. In addition, you may attach a sample course syllabus with a timeline.)

See Attached Topical Outline

9. **Representative Instructional Methods** (Describe instructor-initiated teaching strategies that will assist students in meeting course objectives. Include examples of out-of-class assignments, required reading and writing assignments, and methods for teaching critical thinking skills.) **If hours by arrangement are required by this course, indicate the additional instructional activity which will be provided during this time.**

Reading Assignments
Workbook Lab Assignments

10. **Representative Methods of Evaluation** (Describe measurement of student progress toward course objectives. Courses with required writing component and/or problem-solving emphasis must reflect critical thinking component. If skills class, then applied skills.)

Completion of lab homework
Examination upon completion of each unit
Demonstrated competency by successful completion of lab assignments

11. **Representative Text Materials** (With few exceptions, texts need to be current. Include publication dates.)

See Attached List

Prepared by:

(Signature)

Email address:

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Submission Date:

- I. Fundamentals of Fire Alarm Systems
 - A. Introduction to Initiating Devices and Notification Devices
 - B. Application of Wiring and Wiring Methods
 - C. Application of Testing, Inspection, and Maintenance of Fire Alarm Systems
 - D. Requirements for NICET Certification

- II. Fundamentals of Security Systems
 - A. Application of TIA/EIA Standards and Codes
 - B. Understand and Apply Passive Infrared Motion Detectors
 - C. Understand and Apply Glassbreak Sensors

- III. Overview of Structured Cabling System
 - A. Understand and Apply Basic Telephone Wiring
 - B. Understand and Analysis Performance of Twisted Pair Cables
 - C. Understand the Methods for Grounding and Bonding Telecommunications
 - D. Understand and Differentiate between Commercial and Residential Wiring for Telecommunications

- IV. Overview of Generated Power and Distribution
 - A. Introduction and Application of Solar Power Generation
 - B. Introduction and Application of Uninterruptible Power Supplies
 - C. Introduction and Application of Fuel Cells

Representative Text Materials – ELEL 739

Bunker, Merton. NJATC Guide to Fire Alarm Systems. Upper Marlboro, Maryland: NJATC Press, 2005

National Fire Protection Associates, Inc. National Electric Code 2005. Quincy, Massachusetts: NFPA, 2004.

National Joint Apprenticeship and Training Committee. Codes and Practices Workbook 5. Upper Marlboro, Maryland: NJATC Press, 2005.

National Joint Apprenticeship and Training Committee. Configuring and Installing Structured Cabling Systems Textbook. Upper Marlboro, Maryland: NJATC Press, 2005.

National Joint Apprenticeship and Training Committee. Fire Alarm Workbook. Upper Marlboro, Maryland: NJATC Press, 2005.

National Joint Apprenticeship and Training Committee. Fundamentals of Instrumentation. Clifton Park, New York: Thomson-Delmar Learning, 2005.

National Joint Apprenticeship and Training Committee. Instrumentation Workbook. Upper Marlboro, Maryland: NJATC Press, 2005.

National Joint Apprenticeship and Training Committee. Sentrol NJATC Reference Guide. Upper Marlboro, Maryland: NJATC Press, 2002.

National Joint Apprenticeship and Training Committee. Structured Cabling Workbook. Upper Marlboro, Maryland: NJATC Press, 2005.

National Joint Apprenticeship and Training Committee. Telephone and Security Basics Workbook. Upper Marlboro, Maryland: NJATC Press, 2005.

