

# **COCONINO COMMUNITY COLLEGE**

## **COURSE OUTLINE**

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Status: Permanent

Date: September 13, 2004

A. Identification:

1. Subject Area: Construction Technology Management
2. Course Number: 152
3. Course Title: House Wiring II
4. Credit Hrs: 3
5. Catalog Description: Survey of electrical construction processes for residential applications. Determining materials, installation processes, safety, and code requirements of electrical construction will be emphasized and applied. Prerequisites: CTM 151 House Wiring I or consent of instructor. Two lecture. Two lab. May be taken for S/U credit.

B. Course Goals:

Utilize knowledge gained to apply electrical construction processes in a residential environment.

C. Course Outcomes:

Students will:

1. Identify various service entrances, size, and installation requirements.
2. Identify safety issues in the workplace
3. Identify electrical theory as it applies to electrical construction
4. Identify conductor sizes, types, wiring methods, connections, and voltage drops
5. Identify types of wiring devices used in electrical construction
6. Determine installation process used for various wiring devices
7. Determine wiring capacity
8. Calculate circuit loading, maximum/minimum
9. Interpret National Electric Code (NEC) code for electrical applications
10. Determine bonding requirements and induction heating possibilities
11. Examine grounding requirements for various electrical construction applications.
12. Interpret working drawings
13. Determine individual requirements for calculation and installation of special purpose devices
14. Examine a project from working drawings and specifications

D. Course Content:

Will include:

1. Service-entrance equipment
2. Bonding
3. Electrical symbol blueprint reading
4. NEC code
5. Lighting and switching
6. Grounding equipment and requirements
7. Special purpose circuits
8. Determining circuit loading, type, size, and quantity
9. Device installations
10. General cost estimates
11. General information for electrical construction