

I. CATALOG DESCRIPTION:

- A. Departmental Information
Division: Technical
Department: Electricity/ Electronics
Course ID: ELEC 012
Course Title: Utility Pole Climbing: OSPCTP
Units: 3.25
Lecture: 2
Laboratory: 4

B. Course Description:

Procedures, safety practices and equipment used in telephone and utility pole climbing. Subjects include: knots, handlines, cable repair, pole climbing, blueprints, cable placement, and pole handling. **DOCTOR'S VERIFICATION THAT THERE IS AN ABSENCE OF FEAR OF HEIGHTS, HEART TROUBLE, DIZZINESS, FAINTING SPELLS, HIGH BLOOD PRESSURE, BACK TROUBLE, ASTHMA, EPILEPSY; OR A PHYSICIAN'S STATEMENT THAT PRE-EXISTING CONDITIONS WILL NOT AFFECT THE STUDENT'S ABILITY TO SAFELY COMPLETE THIS COURSE IS REQUIRED.**

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II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: One

III. EXPECTED OUTCOMES FOR STUDENTS:

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

- A. Apply telephone safety procedures and recognize safety equipment as related to traffic, public, personal, and electrical.
- B. Identify and use climbing tools and materials.
- C. Tie knots, handlines and fabricate knot eyes.
- D. Climb a wood pole and play catch while at the top.
- E. Repair and lash stranded cable for use in downguyes and cable arms.
- F. Install and use pole steps.
- G. Interpret and utilize telephone blueprints and schematics.
- H. Apply the principles of fiber and coaxial cable placement techniques.
- I. Disassemble and use the proper wrecking techniques for cable and pole removal.

IV. CONTENT:

- A. Safety Instruction
- B. Introduction to Climbing Gear
 1. Safety equipment
 2. Tools and material
- C. Knot Tying - Handline and eye fabrication

- D. Introduction to Pole Climbing
 - 1. Pole climbing demonstration
 - 2. Pole climbing exercise
- E. Introduction to G095
- F. Actual Working Plant Conditions
- G. Potential Hazards
- H. Safety Procedures
 - 1. Traffic
 - 2. Public safety
 - 3. Personal safety
 - 4. Electrical
- I. Public Relations
- J. Pole Climbing
- K. Defensive Driving Techniques
- L. Ground Level Plant Construction
 - 1. Cable and strand cable techniques
 - 2. Use of tools
 - 3. Proper use of equipment
 - 4. Materials
- M. G095 and Safety - Work area protection
- N. Build Actual Plant Conditions
 - 1. Pole climbing
 - 2. Cable
 - 3. Strand
 - 4. Pole steps
 - 5. Downguys
 - 6. Cable arms
 - 7. Lashing cable
- O. Blueprints and Schematics - Pole climbing exercise
- P. Fiber Optic Cable Placement Techniques - Pole climbing
- Q. Fiber, Coaxial, and Copper Cable Placement Techniques
- R. Field Exercise
 - 1. Manhole safety
 - 2. Underground cable placement techniques
- S. Quality Control
- T. Ladder Use At Working Height
 - 1. Proper carrying techniques
 - 2. Ladder inspection
 - 3. Strand testing
- U. Remove Aerial Plant
 - 1. Proper wrecking techniques
 - 2. Cable and strand removal

V. METHODS OF INSTRUCTION:

Methods of instruction will vary from instructor to instructor but may include:

- A. Lectures and discussions about tools, knots, pole climbing, cable repair, cable placement, blueprints, pole removal and safety procedures.
- B. Lectures and discussions are complemented with practical laboratory exercises, emphasizing safety and "HOW TO" methodology.
- C. Dynamics are accented with the use of show and tell demonstrations and videos.
- D. Homework is assigned to promote know how, expertise, vocabulary and writing skills.

VI. TYPICAL ASSIGNMENTS:

Typical assignments will vary from instructor to instructor but may include:

- A. Tie three knots that are used on the pole.
- B. Repair a stranded cable for use as downguyes.
- C. Identify and use climbing tools and materials.
- D. Written homework assigned each week from the questions and problems in each chapter.
Typical Questions:
 - 1. Describe the principles of fiber and coaxial cable placement techniques.
 - 2. Describe the proper wrecking techniques for cable and pole removal.
- E. Drawings and diagrams to be completed to show their grasp of electrical symbols and logic diagrams.

VII. EVALUATION:

- A. Methods of evaluation will vary from instructor to instructor but may include:
 - 1. Timely tests
 - 2. Mid-term exam
 - 3. Final exam
 - Typical Question: What are pole steps and how are they used?
 - 4. Practical evaluations
- B. Frequency of evaluation will vary from instructor to instructor but may include:
 - 1. One mid-term exam
 - 2. One final exam

VIII. TYPICAL TEXT:

Pac Bell Students PBS Manual, Pac Bell, 1996

IX. OTHER SUPPLIES REQUIRED OF STUDENTS:

None