

## **Live Line Safety (LNWK 2321)**



**Credit:** 3 semester credit hours (1 hour lecture, 4 hours lab)

**Prerequisite/Co-requisite:** LNWK 1301

### **Course Description**

Cover-up procedures and safety requirements for work on energized electrical circuits. Include use, care, and inspection of cover-up material, recognizing nominal voltages and energized parts, approach distances and safety.

### **Required Textbook and Materials**

1. Electrical Essentials for Powerline Workers, Wayne Van Soelen
  - a. ISBN number: 0-7668-1080-1
2. OSHA handouts
3. Handout literature

### **Course Objectives**

Given instructions and practice the student will learn proper use of cover up material and work procedures on energized conductors with an emphasis on safety.

1. Demonstrate and perform proper rubber glove and sleeve use, storage, and care.
2. Properly inspect rubber gloves and cover-up material.
3. Perform safe cover-up procedures.
4. Communicate and perform lockout-tagout procedures.
5. Follow all relevant safety rules and procedures.

### **Course Outline**

- I. Rubber Insulating equipment
  - A. Rubber gloves and sleeves
    1. Use, care, storage
    2. Voltage ratings
  - B. Rubber cover up
    1. Use, care storage
    2. Application
    3. Voltage ratings
- II. Plastic Insulating Equipment
  - A. Use, care, storage
  - B. Application
  - C. Voltage ratings
- III. Cover up Procedures
  - A. Covering in line pole
  - B. Covering corner pole

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IV. OSHA 1910-269

- A. Nominal voltages
  - B. Approach distance
  - C. Energized parts
- VI. Bucket Rescue
  - A. Bucket operation
  - B. Rescue procedure
- VII. OSHA 10 Hour
  - A. Basic safety
  - B. Certification
- IIIX. First Aid/CPR
  - A. Basic first aid
  - B. Adult/Child/Infant CPR
  - C. Certification

**Grade Scale**

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

**Course Evaluation**

Final grades will be calculated according to the following criteria:

<i><b>Activity</b></i>	<i><b>Percentage</b></i>
OSHA Exam	10%
Bucket Rescue Exam	10%
Arrestor change	15%
OSHA 10	25%
First Aid/CPR	10%
Basic Bucket Exam	15%
Daily Grades	15%
<i><b>Total</b></i>	<i><b>100%</b></i>

**Grade points will be awarded in accordance with the college catalog.**

1. Assignments are due on the due date assigned. Late assignments are not accepted.
2. Tests must be taken on the announced date.
3. Daily grades include participation in classroom labs and skill level evaluations.

**Course Requirements**

1. Demonstrate proper use, care, inspection, and storage for insulating equipment
2. Demonstrate proper use, care, inspection, and storage for Rubber gloves and sleeves
3. Properly apply cover up when working near or on energized lines

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4. Recognize nominal voltages present, and distinguish energized parts.
5. Observe minimum approach distances
6. Safely operate a bucket truck
7. Perform routine maintenance and inspections on bucket truck
8. Demonstrate proficiency in bucket rescue

**Attendance Policy:**

1. Class attendance is important to obtain the educational objectives of this course. Prospective employers may also review your attendance records. Regular attendance and being on time for classes will have a positive effect on your academics and employment opportunities.
2. Two absences will result 1 letter grade drop, three absences drop 2 letter grades.
3. **Four absences result in an F for the semester.**

**Course Policies**

1. No food or drinks in class.
2. Daily lab grades cannot be made up.
3. No make ups for Lab tests.
4. Any written test retake has an 80 point maximum grade.
5. LIT is a tobacco free campus- no tobacco products allowed
6. Students must follow safety rules and procedures at all times. Failure to follow safety rules will require action from daily grade reduction to expulsion from LIT.
7. Students must have and wear **all required clothing, including climbing boots at all times**, and have PPE and tools for participation in class and Lab.
8. **Turn off all Cell Phones during class, labs and when on the field.** Unauthorized cell phone use will result in a 0 for the daily grade.
9. Do not bring children to class.
10. Cheating of any kind will not be tolerated. Students caught cheating or helping someone to cheat can and will be removed from the class for the semester. Cheating can result from expulsion from LIT.
11. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
12. Internet Usage
  - a. Classroom computers have access to the internet.
  - b. Student usage of the internet will be monitored.
  - c. Proper usage of the internet will be allowed. Used for classroom research or as directed.
  - d. Any unauthorized use of the internet will not be tolerated.

- e. Improper usage of the internet, such as profanity, pornography, gambling, etc... will result in disciplinary action not limited to expulsion from LIT.

### Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator office in Student Services, Cecil Beeson Building.

### Course Schedule

Week	Topic	Reference
1	Course introduction and policies <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Rubber gloves, sleeves and insulating equipment</li></ul>	Handouts
2	OSHA 1910.269 <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Rubber gloves, sleeves and insulating equipment</li></ul>	Handout
3/4/5	Plastic insulating equipment <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Applying insulating equipment</li><li>• Project: Arrestor change</li><li>• Arrestor change exam</li></ul>	Chapter 6 Handouts
6	OSHA 10 <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Applying safe work practices</li></ul>	Handouts
7/8	Bucket operation <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Bucket operation</li></ul>	Handout
9/10	Bucket rescue <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Bucket rescue</li><li>• Bucket rescue exam</li></ul>	Handout
11/12	Bucket operation <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Bucket operation</li><li>• Project: Insulator change</li></ul>	Handout
13	Bucket operation <ul style="list-style-type: none"><li>• Lecture</li><li>• Lab: Bucket operation</li></ul>	Handout

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Week	Topic	Reference
	<ul style="list-style-type: none"><li>• Project: Insulator change</li><li>• Basic bucket exam</li></ul>	
14	First Aid/CPR <ul style="list-style-type: none"><li>• First aid basics</li><li>• CPR</li><li>• Lab: First aid and CPR practice</li></ul>	Handout
15/16	Final Project <ul style="list-style-type: none"><li>• Lecture</li><li>• OSHA exam</li><li>• Project: Crossarm change</li></ul>	

**Contact Information:**

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