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## SECTION HEADING

### ELWT 1101: Introduction to Wind Energy

#### Description

Introduction to Wind Energy discusses the economic, environmental and political issues in accordance with the OSHA, and other local and zoning codes. The course also identifies the technical rules of the National Electrical Code and explains the licensing laws, definitions, and requirements and calculations for electrical installations, grounding conductors, branch circuits, feeders, and services.

#### Credits

2

#### Topics to be Covered

1. Past and future of wind energy
2. Effects of terrain on wind
3. Issues facing wind energy with OSHA regulations
4. Wind reliability
5. National Fire Protection Association 70- National Electrical Code
6. License/appeals regulations

#### Learning Outcomes

1. Examine how wind works and its reliability
2. Explain the past and future of wind turbines
3. Discuss the evolution of current wind turbine models and sizes offered by existing companies
4. Explain the economic, environmental, and political issues associated with wind energy
5. Describe license, inspection, enforcement, and appeals regulations and procedures
6. Describe overcurrent protection requirements
7. Describe grounding and bonding requirements
8. Describe general and temporary wiring methods requirements
9. Determine conduit, raceway, wireway, and tray cable requirements
10. Determine conductor ampacity, de-rating, and sizing.

#### Credit Details

Lecture: 2

Lab: 0

OJT: 0