

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

**DEPT. ELWT**

**COURSE NUMBER: 1170**

**NUMBER OF CREDITS: 3**

**Lecture: 1 Lab: 2 OJT: 0**

<b>Course Title:</b>
Wind Energy OSHA Standards & Climb Lab

<b>Catalog Description:</b>
Wind Energy OSHA Standards & Climb Lab introduces students to turbine designs, types models and sizes offered by existing companies. Basic safety principles in the wind energy industry and a brief overview of the Occupational Safety and Health Administration (OSHA) pertaining to the climbing of wind turbines will be covered. Students will learn how to properly inspect equipment before climbing and properly store climbing equipment after each use.

<b>Prerequisites or Necessary Entry Skills/Knowledge:</b>
None

**FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)**

- ☐ Goal 1: Communication: By meeting the following competencies:
- ☐ Goal 2: Critical Thinking: By meeting the following competencies:
- ☐ Goal 3: Natural Sciences: By meeting the following competencies:
- ☐ Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- ☐ Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- ☐ Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- ☐ Goal 7: Human Diversity: By meeting the following competencies:
- ☐ Goal 8: Global Perspective: By meeting the following competencies:
- ☐ Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- ☐ Goal 10: People and the Environment: By meeting the following competencies:

<b>Topics to be Covered</b>
Types of wind energy turbines
Systems of wind energy
Wind turbine parts
OSHA standards according to the wind industry
Personal Protective Equipment
Climbing gear inspection
Ladder safety
Working heights

Climbing a wind turbine properly and safely
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<b>Student Learning Outcomes</b>
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Inspect the full body harness.
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Inspect the Lad Safe cable sleeve.
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Inspect the lanyard.
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Demonstrate how to fit the harness.
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Demonstrate how to attach the Lad Safe cable sleeve to the cable.
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Demonstrate how to safely attach the lanyard to a tie off point.
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Develop a technique on how to climb a 200 to 300-foot ladder.
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Describe PPE and other safety gear.
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Explain OSHA rules about ladder safety.
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Identify and locate wind turbine parts
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Discuss safety issues in the wind energy industry
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<b>Is this course part of a transfer pathway: Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/>
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<i>*If yes, please list the competencies below</i>
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Revised Date: 1/1/2022