ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: WND 1210 OSHA and Wind Turbine Safety

Date: Spring 2014

Credit Hours: 2

Prerequisite(s): Student must pass a physical from a medical professional before attempting the climb component.

Delivery Method:	☒ **Lecture**	**1.5 Contact Hours (1 contact = 1 credit hour)**
	☐ **Seminar**	**0 Contact Hours (1 contact = 1 credit hour)**
	☒ **Lab**	**.5 Contact Hours (2 contact = 1 credit hour)**
	☐ **Clinical**	**0 Contact Hours (3 contact = 1 credit hour)**
	☐ **Online**	
	☐ **Blended**	

Offered: ☒ **Fall** ☐ **Spring** ☐ **Summer**

IAI Equivalent –***Only for Transfer Courses***-go to *http://www.itransfer.org*:

CATALOG DESCRIPTION:
This course covers the basic safety practices for the Wind Turbine industry with a focus on OSHA regulations and standards and is appropriate for any industrial Electro-mechanical system. This course also covers Personnel Protective Equipment (PPE).

GENERAL EDUCATION GOALS ADDRESSED

[See the last page of this form for more information.]

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

[Choose those goals that apply to this course.]

- ☐ To apply analytical and problem solving skills to personal, social and professional issues and situations.
- ☐ To communicate orally and in writing, socially and interpersonally.
- ☐ To develop an awareness of the contributions made to civilization by the diverse cultures of the world.
- ☐ To understand and use contemporary technology effectively and to understand its impact on the individual and society.
- ☐ To work and study effectively both individually and in collaboration with others.
- ☐ To understand what it means to act ethically and responsibly as an individual in one's career and as a member of society.
- ☐ To develop and maintain a healthy lifestyle physically, mentally, and spiritually.
- ☐ To appreciate the ongoing values of learning, self-improvement, and career planning.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals.]

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

Competence 1 OSHA safety
- Competence 1.1 Discuss the need for OSHA
- Competence 1.2 Apply limited regulations and standards
- Competence 1.3 Define confined space
- Competence 1.4 Utilize documentation and record keeping systems

Competence 2 Industrial safety
- Competence 2.1 Discuss general safety procedures
- Competence 2.2 Apply appropriate PPE
- Competence 2.3 Define fire hazards
- Competence 2.4 Apply appropriate Fire extinguishers

Competence 3 Ladder and climbing safety
- Competence 3.1 Discuss harness safety
- Competence 3.2 Discuss OSHA climbing safety
- Competence 3.3 Demonstrate a safe climb

Competence 4 Personal Hazards
- Competence 4.1 Discuss emergency procedures
- Competence 4.2 Discuss first aid
- Competence 4.3 Utilize an accident procedure

Competence 5 Rigging Safety
- Competence 5.1 Discuss rigging safety
- Competence 5.2 Discuss overhead safety
- Competence 5.3 Discuss Fall protection
- Competence 5.4 Demonstrate Hand signals

Competence 6 Electrical Safety
- Competence 6.1 Discuss electrical shock and NFPA 70E
- Competence 6.2 Apply appropriate lock out procedures

Competence 6.3 Interpret signs
Competence 6.4 Utilize PPE
Competence 7 Specific Wind Safety
Competence 7.1 Discuss Hydraulic safety
Competence 7.2 Discuss lighting safety
Competence 7.3 Discuss tower evacuation

COURSE TOPICS AND CONTENT REQUIREMENTS:

OSHA Safety
Ladder safety
Tower climbing safety
Confined space
Personal Protective Equipment
First Aid and Accident Procedures
Emergency procedures
Fire Safety
Hand signs
Hazmat safety
Rigging
Hydraulic safety
Electrical safety
Lighting safety
Specific Wind Turbine Safety

INSTRUCTIONAL METHODS:
Lecture
Computer work
Demonstration

INSTRUCTIONAL MATERIALS:
Amatrol Safety software
Amatrol Safety lab manual
Instructor supplied material

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

90% and up	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
00% - 59%	F

Quizzes	10%
Tests	50%
Midterm	20%
Final	20%

Some quizzes and test may be performance based

OTHER REFERENCES

OSHA handbook
NEC handbook
OSHA website

Course Competency/Assessment Methods Matrix

WND 1210 - OSHA and Wind Turbine Safety	**Assessment Options**																																
For each competency/outcome place an "X" below the method of assessment to be used.	**Assessment of Student Learning**	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	**Direct/ Indirect**	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D							
1.1 Discuss the need for OSHA		X						X																				X					
1.2 Apply limited regulations and standards								X	X																			X					X
1.3 Define confined space		X						X	X																			X					
1.4 Utilize Documentation systems					X																								X				X
2.1 Discuss general safety procedures																												X					X
2.2 Apply appropriate PPE					X																								X				X
2.3 Define fire hazards									X																								
2.4 Apply appropriate Fire extinguishers					X																												
3.1 Discuss harness safety								X																				X					
3.2 Discuss OSHA climbing safety									X																								
3.3 Demonstrate a safe climb																				X			X										
4.1 Discuss emergency procedures									X																			X					X
4.2 Discuss first aid								X																				X					
4.3 Utilize an accident procedure															X																	X	X

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Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D							
5.1 Discuss rigging safety		X							X																			X				X
5.2 Discuss overhead safety																												X				
5.3 Discuss Fall protection																												X				
5.4 Demonstrate Hand signals				X	X																											X
6.1 Discuss electrical shock, NFPA 70E		X						X	X																			X				X
6.2 Apply appropriate lock out procedures					X																											
6.3 Interpret signs																												X				X
6.4 Utilize electrical PPE					X																											
7.1 Discuss Hydraulic safety																												X				
7.2 Discuss lighting safety																												X				
7.3 Discuss tower evacuation		X																										X				X