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Class Syllabus

Line Electrician Field Training 3

Catalog #31-413-337 & Class #81848

Starts: October 18th, 2023 Ends: December 14th, 2023

Instructor Information

Cell - (920)422-2056

Instructor Peter Mleziva

Office EE101

Telephone Office - (920)498-5621

Email Peter.mleziva@nwtc.edu

Instructor Availability By appointment

CLASS INFORMATION

Class Schedule:

This class meets on the following days/times:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
7:00am –	7:00am –	7:00am –	7:00am –			
11:20am	11:20am	11:20am	11:20am			

Class Delivery Mode: This class will be taught in a classroom, in the indoor lab and our outdoor training facility

Class Meeting Location: Green Bay Campus EE107/EE204

Course Description: This course provides an introduction to overhead three phase construction, electrical power line equipment; capacitors, regulators and OCR's, three phase transformer design and construction, protective grounds and pole top and buck truck rescue techniques.

Credits: 5

Pre-requisites: Line Electrician Field Training 2A

Textbook: The Guidebook for Linemen and Cablemen, Electrical Power Distribution - Construction Standards, EnergyU Online Course and (ISPC) T&D PowerSkills Workbooks and Videos on Blackboard.

Lineman Training material furnished through a grant from the Institute for Safety in Powerline Construction.

Supplies/Technology: Required program tools and textbooks.

Course Competencies: You have the opportunity to learn the following skills in this course:

COMPETENCIES						
Install poles in single/three-phase system						
Frame poles for single/three-phase						
Perform proper pole climbing						
Perform proper truck operation						
5. Use hand and power tools						
6. Tie knots and splice ropes						
7. Demonstrate rigging techniques						
8. Install hot line cover up gear						
Identify circuits and equipment in the field						
10. Install transformer hook-ups						
11. Install & remove Oil Circuit Reclosures (OCRs)						
12. Install & remove capacitor bank						
13. Install and removal of protective grounds						
14. Install and remove Voltage Regulators						
15. Demonstrate Pole Top Rescue techniques						
16. Demonstrate Bucket Truck Rescue techniques						

NWTC ALL-COLLEGE POLICIES

These policies are in effect for all classes at NWTC.

Please refer to the <u>NWTC Student Handbook</u> for a full explanation of all NWTC student-related policies, definitions, and related consequences. To raise your awareness and understanding of the expectations of higher learning, we invite you to specifically review the policies outlined below:

Rights & Responsibilities:

- Student Code of Conduct
- Academic Integrity (includes Plagiarism, cheating and collusion)
- Affirmative Action/Equal Opportunity Statement
- Assessments
- Copyright Notice
- <u>NWTC Alcohol, Tobacco and Drug Free</u>
 Campus

- Title IX as it relates to:
 - o <u>Pregnancy</u>
 - Sexual Misconduct
- Tobacco/Nicotine Use- All Campuses
 - Refund Policy
- Withdrawal from a Class or Program
- Student Academic Grievance
- Accommodation for Religious Beliefs
- Web Privacy Policy

Student's Right to Know:

- Alcohol and Drug Abuse Prevention
- **Discrimination and Harassment Prevention**: NWTC is committed to embracing the worth of every individual and promoting a respectful environment. Discrimination and harassment of protected categories in its employment and educational programs is prohibited. For questions or concerns, contact the Director of Diversity & Inclusion/Title IX Coordinator @ mohammed.bey@nwtc.edu or by phone @ (920) 498-6826.
- Disability Act Statement: NWTC complies with all provisions of the Americans with Disabilities Act
 and makes reasonable accommodations upon request. Please contact Disability Services for more
 information regarding the support services available to you, call 920-498-6904.
- Campus Closure Day(s) Procedure: In the event a campus closure is necessary, there are two emergency closure dates built into the end of each 8-week session. Instructors will provide detailed information within 24 hours of the college cancellation.

Student Academic Calendar:

Visit Academic Calendar page for important College dates you should add to your personal calendar.

Instructor Responsibilities:

As a NWTC instructor, I am expected to:

- Maintain a professional, safe learning environment while adhering to the policies of the college.
- Provide open and frequent communication with students regarding their progress in this class.
- Reply to communications within 48 business hours.
- Grade assignments and post scores in Blackboard regularly.
- Provide feedback to guide learners toward improvement of their coursework.
- Post information about assignments in Blackboard Class Materials and Grade Center.
- (In the event of a college level cancellation) Communicate with students within 24-hours a detailed plan regarding expectations for responding to the cancellation.

Student Responsibilities:

As a NWTC student, you are expected to:

- Follow the policies of the College as outlined by the Student Handbook (noted above in Rights & Responsibilities section) and of the Instructor as outlined in the course syllabus.
- Monitor and use your NWTC Student Email account. Email is the official mode of communication at NWTC.
- Make an honest attempt to use correct English grammar and punctuation in all written communications.
- Utilize Starfish to monitor your course success, to communicate with instructors, and to connect with college services.
- Follow the due dates established in the Course Calendar (found at the end of this document) and posted in the electronic calendar in Blackboard.
- Keep your contact information up to date in RAVE to ensure that you receive prompt notification in the event of a college closure.
- Communicate questions, comments or concerns to your instructor via email, voicemail, or in-person.

Student Services:

NWTC cares about your Physical and Emotional well-being, Resources and Support services are available for a variety of student needs. Visit the following link to explore: https://www.nwtc.edu/students

It can be challenging to do your best in class if you have trouble meeting your basic needs like a safe and stable place to sleep or getting enough food to eat. If you have difficulty with these things, contact Student Support Services located on the Green Bay campus in SC133, call 498-6258, or email supportservices@nwtc.edu. Though located in Green Bay, support services are available district wide. For more information, please visit Support Services page

Academic Coaching at NWTC:

Academic Coaching is available for most courses at NWTC. Check us out at www.nwtc.edu/academiccoaching for more information.

CLASS SPECIFIC POLICIES

Appropriate Use of Technology: Cell phone use will be not allowed during Line Electrician Field Training 2B Monday through Thursday from 7:00am to 11:20am. If you need to use the phone other than an emergency, you shall get permission from me prior to making your phone call. Failure to follow this rule will result in a loss

of a week's worth of points in your Modeling Responsible Behavior grade. If cell phone use continues past one warning you will be asked to leave and will not be allowed back into any of my classes until you meet with the programs associate dean and a NWTC counselor.

Dress Code: Students are to look as if they were going to their place of employment and look like a professional. This means all pants must be worn at the waistline and no undergarments can be seen, shirts must have sleeves, no shorts and no jewelry. Failure to follow this rule will result in the student being asked to leave the class and a days' worth of points will be lost in the Modeling Responsible Behavior grade.

Inappropriate Language: Use of inappropriate language will not be tolerated. Failure to follow this rule will result in a loss of a week's worth of points in your Modeling Responsible Behavior grade. If inappropriate language continues past one warning you will be asked to leave and will not be allowed back into any of my classes until you meet with the programs associate dean and a NWTC counselor.

Syllabus Changes: As your instructor, I retain the right to make changes based on the timeline of the class, feedback from learners and/or logistical issues and will inform you as soon as a change is made.

Attendance and Participation: Attendance and/or class participation is required. Failure to attend classes may affect your grade and/or program status. NWTC reserves the right to impose class attendance restrictions in courses and programs, based on administrative guidelines. Attendance ethics are important, as potential employers will investigate attendance records and transcripts. A phone call to the instructor prior to the start of the class is required if the student will be absent or late.

Grading Policy: Grades will be computed by compiled test and quiz grades, and classroom participation. Attendance is imperative as demonstrations and practice labs build accumulative skills and many times cannot be repeated.

Assignments turned in after the due date will have points deducted. A time to make-up the missed test must be arranged the next day that school is attended *(this is your responsibility)*, or five points will automatically be deducted from the test score. Students with an un-excused absence on test days will not be allowed to make up tests and will result as a zero grade.

It will be the responsibility of the student to get notes from fellow classmates and to make arrangements for makeup tests. Daily quizzes will not be available to make up.

Assignments/EnergyU course tests must be submitted on the due date prior to the start of class.

Grading Components Classroom Component 40% of Grade Points Points Weighted Grade Earned Possible Percent EnergyU Online Course - Tests 400 8 X Weeks 1-4 Test 100 10 = X 12 Transformer Drawing Final 100 X Field Training 1, 2A and 2B Final Test 100 X 15 = Modeling Responsible Behavior 96 15 X = **Lecture Totals 790** 60%

Field Lab Component 60% of Grade	Points Earned		Points Possible		Weighted Percent		Grade
Safety – Competencies		/	100	X	7.5	=	
Field Lab Grade		/	700	X	25	Ш	

Knot Tying – Ropes & Rigging - Competencies	/	100	X	7.5		
Field Lab Totals	/	800	X	40%	=	

Grading Scale:	
Scale	Grade
100 - 90	Α
89 - 80	В
79 - 70	С
69 - 60	D
59 – 0	F

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Classroom Course Calendar: Line Electrician Field Training 2B

Week 1 Pole Top Rescue (Oct 18th – Oct 19th)

- Day 1 = Handout Syllabus
- Day 2 = Transformer Drawings

Week 2 Bucket Truck Rescue (Oct 23rd – Oct 26th)

- Day 1 = Pole Top/Bucket Truck Rescue Technique
 - Notes: Pole Top Rescue
- Day 2 = Bucket Truck Rescue Technique/ Transformer Drawings
 - Notes: Bucket Truck Rescue
- Day 3 = Transformer Drawings
- Day 4 = Weekly Review

Week 3 Grounding (Oct 30th – Nov 2nd)

- Day 1 = The Guidebook for Linemen and Cablemen Ch. 13
- Day 2 = Transformer Drawings
- Day 3 =Notes: Grounding
- Day 4 = Weekly Review

Week 4 Energized Line Work/Three Phase Transformer Banks (Nov 6th – Nov 9th)

- Day 1 = The Guidebook for Linemen and Cablemen Ch. 18
- Day 2 = Transformer Drawings
- Day 3 = The Guidebook for Linemen and Cablemen Ch. 14 pages 541 572
- Day $4 = \text{Weeks } 1-4 \text{ Test} \text{Nov } 17^{\text{th}}$

Week 5 Overhead Distribution Equipment (Nov 13th – Nov 16th)

- Day 1 = EnergyU Online Course: 02060 Remove Overhead Line Equipment on Energized Circuits
- Day 2 = EnergyU Online Course: 02100 Routine Inspection of Overhead Distribution Line Equipment
- Day 3 =Notes: Recloser
- Day 4 = Field Day

Week 6 Circuit Protection, Switches and Capacitor Banks (Nov 20th - Nov 23rd)

- Day 1 = The Guidebook for Linemen and Cablemen Ch. 11 pages 404 417
- Day 2 = EnergyU Online Course: 02013 Install Pole-Top Equipment on Energized Primary **Distribution Circuits**
- Day 3 = No School Thanksgiving Break
- Day 4 = No School Thanksgiving Break

Week 7 Circuit Protection, Switches and Capacitor Banks (Nov 27th – Nov 30th)

- Day 1 = The Guidebook for Linemen and Cablemen Ch. 15 pages 598 603
 - **Notes: Capacitors**

Day 2 = EnergyU Online Course: 02105 Overhead Line Capacitor Bank Testing & Replacement

- Day 3 = Transformer Drawings
- Day 4 = Weekly Review

Week 8 Regulators (Dec 4th – Dec 7th)

- Day 1 = The Guidebook for Linemen and Cablemen Ch. 15 pages 590 598
- Day 2 = Notes: Regulators
- Day 3 = Transformer Drawings
- Day 4 = Weekly Review

Week 9 Review/Finals (Dec 11th – Dec 14th)

- Day 1 = Review
- Day 2 = Review
- Day 3 = Transformer Drawing Final
- Day 4 = Test on Field Training 1, 2A, & 2B

Field Lab Course Calendar: Line Electrician Field Training 2B

Week 1 (Oct 18th – Oct 19th)

Day 1 = Pole Top Rescue – Three Phase Pole Installation

Week 2 (Oct 23rd – Oct 26th)

- Day 1 = Single Phase Transformer Installation Three Phase Pole Installation
- Day 2 = Single Phase Transformer Installation Three Phase Pole Installation
- Day 3 = Single Phase Transformer Installation Three Phase Pole Installation
- Day 4 = Single Phase Transformer Installation Three Phase Pole Installation

Week 3 (Oct 30th – Nov 2nd)

- Day 1 = Personal Protective Grounding Installation
- Day 2 = Personal Protective Grounding Installation
- Day 3 = Personal Protective Grounding Installation
- Day 4 = Personal Protective Grounding Installation

Week 4 (Nov 6th – Nov 9th)

- Day 1 = Pole Top Rescue Assessment
- Day 2 = Pole Top Rescue Assessment
- Day 3 = Pole Top Rescue Assessment Single Phase Transformer Assessment
- Day 4 = Pole Top Rescue Assessment Single Phase Transformer Assessment

Week 5 (Nov 13th - Nov 16th)

- Day 1 = Single Phase Transformer Assessment
- Day 2 = Single Phase Transformer Assessment
- Day 3 = Single Phase Transformer Assessment
- Day 4 = Single Phase Transformer Assessment

Week 6 (Nov 20th – Nov 23rd)

- Day 1 = Personal Protective Grounding Assessment
- Day 2 = Personal Protective Grounding Assessment
- Day 3 = No School Thanksgiving Break
- Day 4 = No School Thanksgiving Break

Week 7 (Nov 27th – Nov 30th)

- Day 1 = Personal Protective Grounding Assessment
- Day 2 = Personal Protective Grounding Assessment
- Day 3 = Three Phase Pole Assessment Regulators Three Phase Transformers
- Day 4 = Three Phase Pole Assessment Regulators Three Phase Transformers

Week 8 (Dec 4th – Dec 7th)

- Day 1 = Three Phase Pole Assessment Regulators Three Phase Transformers
- Day 2 = Three Phase Pole Assessment Regulators Three Phase Transformers
- Day 3 = Regulator Assessment Three Phase Transformer Assessment
- Day 4 = Regulator Assessment Three Phase Transformer Assessment

Week 9 (Dec 11th – Dec 14th)

 $\overline{\text{Day 1}} = \text{Regulator Assessment} - \text{Three Phase Transformer Assessment}$

Day 2 = Regulator Assessment - Three Phase Transformer Assessment

Day 3 =Knot and Splicing Assessment

Day 4 = Climbing Assessment

Assessments

Pole Top Rescue – Individual

Three Phase Pole Installation – Group

 $Single\ Phase\ Transformer-Pair \\ Regulators-Individual$

Personal Protective Grounding – Pair Three Phase Transformer Bank – Individual

NORTHEAST WISCONSIN TECHNICAL COLLEGE ELECTRICAL POWER PROGRAM MODELING RESPONSIBLE BEHAVIOR RUBRIC

Modeling Responsible Behavior Grades

- 5% of grade in Safety Courses
- 5% of grade in Construction Standards Course
- 15% of grade in Field Training Courses

The Modeling Responsible Behavior Rubric is based on 3 different components: Promptness, Participation, and Professionalism. The criteria for evaluation may be different from one course to another; however you will be evaluated on the same components and in all your courses, each time your class meets. You will obtain either a 0 or a 1 in each

component. The total possible points available are dependent on the number of times the class meets.

(Criteria)	Behavior	Points	Available
Promptness:	Demonstrates personal accountability Present and on time Prepared and alert, mentally and physically Present for entire session	0	1
Participation:	 Thinks critically and creatively Shares experiences applicable to current content Value individual differences and abilities Doesn't interrupt or distract other students, verbally or non-verbally Work cooperatively and professionally Displays eagerness for learning/experiences Communicate effectively Asks appropriate questions Positive mannerisms-No negativity Does not monopolize class discussion Contributes appropriately with relevant information Uses proper communication, language, pronunciations, Grammar, spelling, etc Solve problems effectively Offers answers, Offers opinion Completes lab projects with minimal guidance 	0	1
Professionalism:	 Demonstrates personal accountability Cell phones and pagers are off during class, lab and field trips Complies with all NWTC Code of Conduct policies Demonstrates community and global accountability Courteous and respectful to all, verbally and/or non-verbally, without bias or discrimination Recognize personal responsibility in making decisions that utilize resources in a sustainable manner 	0	1