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## Northeast Wisconsin Technical College

### *Land Acknowledgement Statement*

The region served by NWTC **occupies the ancestral home** of the Menominee Nation, who have **persisted here** in Northeast Wisconsin from **before recorded history** to the present day. The College's Green Bay campus exists **upon lands ceded from the Menominee Tribe to the Oneida Nation**. We acknowledge this land we stand upon today as sacred, historical, and significant to the Menominee and Oneida Nations as are the **lands of all First Nations People**.

See more detail at <https://tinyurl.com/244wh3xf>

## Line Electrician Field Training 4 - SYLLABUS

Catalog #31-413-332 & Class #21492

Starts: January 17, 2023      Ends: March 17, 2023



### INSTRUCTOR INFORMATION & RESPONSIBILITIES

**Instructor** Dan Scheider  
**Office** EE101M  
**Telephone** Office: 920-498-5668  
Cell: 920-246-8225  
**Email** [dan.scheider@nwtc.edu](mailto:dan.scheider@nwtc.edu)  
**Instructor Availability** By Appointment

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 learners 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 Learning Plans and Grade Center.
- (In the event of a college level cancellation) Communicate with learners a detailed plan regarding expectations for responding to the cancellation within 24-hours.

### Class Schedule:

This class meets on the following days/times:

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

**Class Delivery Mode:** This class meets in an 8-week format with both in-person and online components.

**Class Meeting Location:** This class meets in EE107

**Course Description:** This course provides field lab opportunities for the learner to develop knowledge, understanding and skills of circuits, transformers, meters, transmission/distribution construction and safe work practices required for employment in this field.

**Credits:** Five credits

**Pre-requisites/Corequisites:** Line Electrician Field Training 2-B, valid driver's license

**Textbook:** APPA Safety Manual, 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:** Notebook, pen; laptop (available in classroom if you don't have one); Climbing/Tools

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

<b>Course Competencies:</b>
Perform proper pole climbing
Perform proper truck operation
Use hand and power tools
Perform safe chainsaw operations
Perform protective grounding procedures on distribution systems
Perform protective grounding procedures on transmission systems
Perform construction on transmission systems
Perform hot stick work
Use fire extinguishers
Acquire interviewing skills
Tie knots and splice ropes
Demonstrate rigging techniques
Demonstrate replacing a service without interruption of service to the customer
Identify different types of watt hour meters

**Employability Skills:** In addition to specific job-related training, NWTC has identified transferrable employability skills reaching beyond the context of a specific course. These are:

<b>NWTC's TRANSFERABLE EMPLOYABILITY SKILLS</b>
1. Communicate Effectively
2. Work Cooperatively and Professionally
3. Think Critically and Creatively
4. Solve Problems Effectively
5. Value Individual Differences and Abilities
6. Demonstrate Personal Accountability
7. Demonstrate Community and Global Accountability

**Student Services to Support You:** Being in college is an exciting time to develop skills, further your career path, and build community. We don't want financial challenges to get in your way! Our team is ready to support basic needs such as groceries, housing assistance, transportation assistance, and more. Our goal is to keep you on track with your studies and educational goals. If you are experiencing a financial emergency or an unexpected event in your life, let us help. Support services are available at all NWTC locations. Our main office is located on the Green Bay campus in SC133. We can be reached by phone (920) 498-6258, email [supportservices@nwtc.edu](mailto:supportservices@nwtc.edu) or in-person. For more information, please visit us at [www.nwtc.edu/student-experience/student-support-services](http://www.nwtc.edu/student-experience/student-support-services).

Additionally, NWTC provides many services and support networks to assist our students. Descriptions of these services can be found in the NWTC Student Handbook or at [www.nwtc.edu/students](http://www.nwtc.edu/students). We encourage you to learn about the resources available to you, ranging from student involvement and personal counseling to academic, financial aid, or career advising. When you are looking for services, please contact your instructor or academic advisor via Starfish, or by calling (920) 498-5444.

**Academic Coaching (Tutoring) at NWTC:** Academic Coaching provides an additional layer of support to ensure students achieve their academic goals. Academic Coaching is committed to serving all students as an academic resource to promote student growth and success. Students who use Academic Coaching receive content help, but also gain study skills, organization skills, time management, and confidence. We understand that school can be challenging; let us help you reach your academic goals at [www.nwtc.edu/academiccoaching](http://www.nwtc.edu/academiccoaching)

### NWTC ALL-COLLEGE POLICIES

These policies are in effect for all classes at NWTC:

This syllabus is a learning contract between you and your instructor. In addition to your syllabus, there are policies and procedures listed in the NWTC Student Handbook that all students must uphold. Please refer to the NWTC Student Handbook to raise your awareness and understanding of the College's expectations.

[NWTC Student Handbook](#)

- [Academic Integrity \(includes Plagiarism, cheating and collusion\)](#)
- [Drop from a Class or Program](#)
- [Student Academic Grievance](#)
- **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 Mohammed Bey, Chief Diversity Officer, by email at [mohammed.bey@nwtc.edu](mailto:mohammed.bey@nwtc.edu) or by phone at (920) 498-6826.
- **Disability Act Statement:** NWTC is committed to creating a learning environment that meets the needs of its diverse student body. NWTC complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. If you have a disability, please call Disability Services at (920) 498-6904 to begin a conversation regarding the support services available to you or to request an official accommodation.
  - [Accessibility & Data Privacy](#)

**Student Academic Calendar:** Visit [Academic Calendar page](#) for important College dates you should add to your personal calendar.

**Course Calendar** with due dates located in Blackboard.

### CLASS SPECIFIC POLICIES

In addition to the college policies referenced, the following instructor policies also apply to this course:

**Attendance and Participation:** 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 or text message to the instructor prior to the start of the class is required if the student will be absent or late.

**Estimated number of hours required to be successful in the class (class hours and outside hours for homework, readings, etc.)** Approximately 18 hrs. weekly classes and 9 hrs. outside of class

**Technology Skills & Assistance:** Basic computer skills (examples include, but not limited to sending emails, completing class assignments using specific software (Word, Blackboard, EnergyU, etc.)

### **Research Help**

Find resources through [Library Search](#), the [online databases](#), or your [program guide](#). Visit the [Ask a Librarian FAQ site](#) to contact librarians, explore the [Research Skills Tutorial](#) or learn to [Cite Sources](#).

### **Technology Help**

Get technical assistance by calling the Student Help Desk at (920) 498-6900 or 1-866-235-5037.

Learn more about the technology skills needed to be successful at NWTC (such as sending email, using software for assignments, submitting online work, and using test monitors) by watching the [Technology 101 video series](#) or visiting the [Ask a Librarian FAQ site](#).

Find out how to [Download Office 365 for Free](#) and access [Off-Campus Software](#). Learn how to [borrow equipment from NWTC](#).

**Appropriate Use of Technology in Class:** Use of cell phones, iPods, and other irrelevant electronic devices (including ear buds) are ***not*** permitted in the classroom. Please set cell phones in silent mode. Texting is ***not*** allowed during class time. Students caught using electronic devices without permission will be dropped one whole grade value. Please be careful with Social Media keeping in mind all students must feel safe and supported.

**Campus Closure Day(s) Procedure:** In the event of campus or center closings, timely notification of 6:00 a.m. (day classes) and 3:00 p.m. (evening classes) will be given to designated media. Notification will also be sent out via the [RAVE](#) alert system and will be posted on the NWTC Website and the NWTC Facebook page as closings occur.

**Instructor will advise any necessary makeup work/days.**

**Syllabus Changes:** Instructors retain the right to make changes based on the timeline of the class, feedback from learners and/or logistical issues. Students will be informed as soon as a change is made. A current copy of the course syllabus will be maintained by the division office.

### **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* in Blackboard 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.

**Grading Policy:**

- Grades will be computed by compiled test and quiz grades, fieldwork evaluations, and lab and Grades will be computed by compiled test and quiz grades, fieldwork evaluations, and lab 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 5 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 5 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 and Weekly Quizzes must be submitted on the due date.**

**If not completed by the due date and time it will result in a zero grade.**

**Grading Components**

<b>Lecture Component: 65% of Grade</b>	<b>Points Earned</b>		<b>Points Possible</b>		<b>Weighted Percent</b>		<b>Grade</b>
Weekly Quizzes		/	50	x	5	=	
EnergyU Online Course - Tests		/	900	x	18		
Weeks 1-3 Test		/	100	x	5	=	
Weeks 4-7 Test		/	100	x	5	=	
Field Training 3, 2A, 2B, and 1 - Final Test		/	100	x	17		
Modeling Responsible Behavior		/	90	x	15	=	
<b>Lecture Totals</b>		/	<b>1340</b>	<b>x</b>	<b>65%</b>	=	
<b>Field Lab Component: 35% of Grade</b>	<b>Points Earned</b>		<b>Points Possible</b>		<b>Weighted Percent</b>		<b>Grade</b>
Safety – Competencies		/	100	x	5	=	
Pole Climbing - Competencies		/	100	x	7.5	=	
Truck Operation - Competencies		/	100	x	5	=	
Hand and Power Tools - Competencies		/	100	x	5	=	
Knot Tying – Ropes and Rigging - Competencies		/	100	x	5	=	
Construction of Overhead Distribution/ Transmission System - Competencies		/	100	x	7.5	=	
<b>Field Lab Totals</b>		/	<b>600</b>	<b>x</b>	<b>35%</b>	=	

**Final Grade Scale:**

A = 93 – 100    B = 85 – 92    \*C = 75 – 84    D = 67 – 74    F = 0 - 66

\* C is the minimum passing grade for this class.

**Course Calendar: Line Electrician Field Training 3**

**Week 1 (Jan 17<sup>th</sup> – Jan 19<sup>th</sup>) Metering**

Jan 17<sup>th</sup> = Welcome Back/ Course Syllabus Review

= T&D PowerSkills Workbook in Blackboard: TDD05 Rigging for High Voltage Work

Jan 18<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 20: pages 771 – 803

= EnergyU: 05300 Meters and Metering Applications Fundamentals

Jan 19<sup>th</sup> = T&D PowerSkills Workbook in Blackboard: TDA17 Introduction to Metering

= EnergyU: 05010 Single Phase Metering Self Contained Socket Base-Basics

= Week 1 Quiz

**Week 2 (Jan 23<sup>rd</sup> – Jan 26<sup>th</sup>) Metering**

Jan 23<sup>rd</sup> = EnergyU: 05030 Three Phase Metering Self Contained Socket Base-Basics

Jan 24<sup>th</sup> = EnergyU: 05050 Instrument Transformers-Current and Potential Transformers for  
Electric Metering – Basics

Jan 25<sup>th</sup> = T&D PowerSkills Workbook in Blackboard: TDA04 Substation and Switchyards

= WPS Metering Power Point - Blackboard

Jan 26<sup>th</sup> = Week 2 Quiz

**Week 3 (Jan 30<sup>th</sup> – Feb 2<sup>nd</sup>) Tree Trimming**

Jan 30<sup>th</sup> = T&D PowerSkills Workbook in Blackboard: TDB108 Tree Trimming

= Videos in Blackboard – 7.56 minutes

Jan 31<sup>st</sup> = The Guidebook for Linemen & Cablemen - Chapter 21: pages 805 – 841

Feb 1<sup>st</sup> = EnergyU: 12110 Tree Trimming

Feb 2<sup>nd</sup> = Test Weeks 1 – 3

#### **Week 4 (Feb 6<sup>th</sup> – Feb 9<sup>th</sup>) Troubleshooting**

Feb 6<sup>th</sup> = T&D PowerSkills Workbook in Blackboard: TDB102 Service Installation

= Fire Extinguisher Training – Jonathon Ladwig – 7:30 – 10:00

Feb 7<sup>th</sup> = EnergyU: 02104 Overhead Systems General Troubleshooting

Feb 8<sup>th</sup> = EnergyU: 02204 Storm Work

Feb 9<sup>th</sup> = Week 4 Quiz

#### **Week 5 (Feb 13<sup>th</sup> – Feb 16<sup>th</sup>) Transmission**

Feb 13<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 3: pages 102 – 103

= The Guidebook for Linemen & Cablemen - Chapter 5: pages 157 – 160

= T&D PowerSkills Workbook in Blackboard: TDD06 Transmission Line Repair  
(Hotsticks)

Feb 14<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 8: pages 281 – 298

= The Guidebook for Linemen & Cablemen - Chapter 9: pages 313 – 319

Feb 15<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 12: pages 430 – 433

= The Guidebook for Linemen & Cablemen - Chapter 15: pages 587 (Top Half)

Feb 16<sup>th</sup> = Week 5 Quiz

#### **Week 6 (Feb 20<sup>th</sup> – Feb 23<sup>rd</sup>) Transmission & Distribution**

Feb 20<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 8: pages 219 – 222

= The Guidebook for Linemen & Cablemen - Chapter 3: pages 106 – 112

= The Guidebook for Linemen & Cablemen - Chapter 9: pages 301 – 312

Feb 21<sup>st</sup> = The Guidebook for Linemen & Cablemen - Chapter 19: pages 740 – 769

Feb 22<sup>nd</sup> = The Guidebook for Linemen & Cablemen - Chapter 12: pages 437 – 479

Feb 23<sup>rd</sup> = Week 6 Quiz



**Week 7 (Feb 27<sup>th</sup> – March 2<sup>nd</sup>) Substations**

- Feb 27<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 3: pages 103 – 105
  - = EnergyU: 01400 Substations: Theory and Applications – Equipment Recognition
  - = Climbing/Knot assessments
- Feb 28<sup>th</sup> = The Guidebook for Linemen & Cablemen - Chapter 4: pages 114 – 139
  - = Climbing/Knot assessments
- March 1<sup>st</sup> = The Guidebook for Linemen & Cablemen - Chapter 12: pages 433 – 434
  - = The Guidebook for Linemen & Cablemen - Chapter 15: pages 587 (Bottom Half)
  - = EnergyU: 01403 Substation Troubleshooting
  - = Climbing/Knot assessments
- March 2<sup>nd</sup> = Test Weeks 4 – 7
  - = Climbing/Knot assessments

**Week 8 (March 6<sup>th</sup> – March 9<sup>th</sup>) Finals**

- March 6<sup>th</sup> = Climbing/Knot assessments
- March 7<sup>th</sup> = Climbing/Knot assessments
- March 8<sup>th</sup> = Review
- March 9<sup>th</sup> = Review

**Week 9 (March 13<sup>th</sup>) Finals**

March 13<sup>th</sup> = Line Electrician Final - 3, 2B, 2A, and 1

<b>Quiz Dates:</b>	<b>EnergyU Online Course Test Dates:</b>
Week 1 Quiz – Jan 19 <sup>th</sup>	Week 1– Jan 18 <sup>th</sup> - 05300 Meters and Metering Applications Fundamentals
Week 2 Quiz – Jan 26 <sup>th</sup>	Week 1 – Jan 19 <sup>th</sup> - 05010 Single Phase Metering Self Contained Socket Base-Basics
Week 4 Quiz – Feb 9 <sup>th</sup>	Week 2 – Jan 23 <sup>rd</sup> - 05030 Three Phase Metering Self Contained Socket Base-Basics
Week 5 Quiz – Feb 16 <sup>th</sup>	Week 2 – Jan 24 <sup>th</sup> - 05050 Instrument Transformers-Current and Potential Transformers for Electric Metering - Basics
Week 6 Quiz – Feb 23 <sup>rd</sup>	Week 3 – Feb 1 <sup>st</sup> - 12110 Tree Trimming
	Week 4 – Feb 7 <sup>th</sup> - 02104 Overhead Systems General Troubleshooting
	Week 4 – Feb 8 <sup>th</sup> - 02204 Storm Work
<b>Test Dates:</b>	
Week 3 – Test Weeks 1 - 3 = Feb 2 <sup>nd</sup>	Week 7 – Feb 27 <sup>th</sup> - 01400 Substations: Theory and Applications – Equipment Recognition
Week 7 – Test Weeks 4 – 7 = March 2 <sup>nd</sup>	Week 7 – March 1 <sup>st</sup> - 01403 Substation Troubleshooting
Week 8 - Field Training 3, 2A, 2B, and 1 - Final Test – March 13 <sup>th</sup>	

**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.

<b>(Criteria)</b>	<b>Behavior</b>	<b>Points</b>	<b>Available</b>
<b>Promptness:</b>	<ul style="list-style-type: none"> <li>• <i>Demonstrates personal accountability</i> Present and on time Prepared and alert, mentally and physically Present for entire session</li> </ul>		<b>1</b>
<b>Participation:</b>	<ul style="list-style-type: none"> <li>• <i>Thinks critically and creatively</i> Shares experiences applicable to current content</li> <li>• <i>Value individual differences and abilities</i> Doesn't interrupt or distract other students, verbally or non-verbally</li> <li>• <i>Work cooperatively and professionally</i> Displays eagerness for learning/experiences</li> <li>• <i>Communicate effectively</i> 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...</li> <li>• <i>Solve problems effectively</i> Offers answers, Offers opinion Completes lab projects with minimal guidance</li> </ul>		<b>1</b>
<b>Professionalism:</b>	<ul style="list-style-type: none"> <li>• <i>Demonstrates personal accountability</i> Cell phones and pagers are off during class, lab and field trips Complies with all NWTC Code of Conduct policies</li> <li>• <i>Demonstrates community and global accountability</i> 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</li> </ul>		<b>1</b>

