LINEWORKER - ELECTRICAL (LNWK)

LNWK 100. Introduction to Climbing Techniques
Credits: 3
Typically Offered: SUMMER
The course enables students to learn basic 100% fall protection climbing techniques required to be a lineworker. Students will also learn how to use assorted lineworker tools, handlines creating various knots, and installing crossarms at the 30 foot level.

LNWK 101. Applied Electrical Distribution
Credits: 5
Typically Offered: FALL
This is a lab course in which students will learn to climb and work on poles, dig holes, set and frame poles, string, armor rod, tie and sag conductors, and build single-phase lines.circuits.

LNWK 104. Introduction to Truck Driving Techniques
Credits: 1
Typically Offered: SUMMER
This is an online course setup to prepare lineworker students to take and receive a Class A CDL permit from the state of North Dakota.

LNWK 108. Truck Driving Simulator Training
Credits: 1
Typically Offered: FASPSU
This course is designed to give lineworker students tractor trailer simulator instruction on specific driving techniques, defensive driving tips in preparation for the behind the wheel training, pre-trip, and practical examination.

LNWK 110. Equipment Operations
Credits: 3
Typically Offered: SUMMER
A mix of classroom training and outdoor lab work studying the safe and efficient operation of digger derricks, skid steer loaders w/attachments, backhoes, trenchers and bucket trucks.

LNWK 113. Truck Driving Techniques
Credits: 1
Prerequisites: LNWK 104 and a drug screening test and insurable driving record is required.
Typically Offered: FALLSPR
This course is designed to give students behind-the-wheel truck driving skills. The skills obtained in this class will help prepare students for the North Dakota Department of Transportation Commercial Drivers License.

LNWK 125. Applied Electrical Distribution I
Credits: 5
Prerequisite: LNWK 100.
Typically Offered: FALL
A five credit, eight week lab course in which students will apply pole climbing skills acquired in LNWK 100. Tasks will include single circuit line staking, setting, and aerial framing poles, stringing, grounding, sagging and dead-ending conductors.

LNWK 130. Applied Electrical Distribution II
Credits: 5
Prerequisite: LNWK 125.
Typically Offered: FALL
A five credit eight week lab course in which students will apply skills acquired in LNWK 100 and LNWK 125. Tasks will include but not be limited to setting, and aerial framing poles, stringing, grounding, sagging, dead-ending, armor rodding and clipping conductors on single and multi-circuit systems.

LNWK 140. Electrical Distribution Overhead
Credits: 4
Typically Offered: FALLSPR
The course includes the principles to function as a lineworker. Course includes climbing equipment, poles, pole guying, conductors, insulators, proper grounding of equipment, personal protective grounding, and proper use of equipment and tools as well as related safety to accomplish the above.

LNWK 150. Basic Electricity and Field Safety
Credits: 3
Typically Offered: FALL
Study of the fundamentals of basic electricity. Subjects include DC and AC theory, Ohm's law and circuit calculations, reactance and power factor, and related math skills.

LNWK 210. Transmission Construction, Maintenance and Safety
Credits: 4
Prerequisite: LNWK 130.
Typically Offered: SPRING
LNWK 210 is a four credit eight week lab course in which the students will continue to discover and master transmission and distribution circuit construction and maintenance skills.

LNWK 220. Advanced Distribution Overhead Construction
Credits: 4
Prerequisite: LNWK 210.
Typically Offered: SPRING
LNWK 220 is a four credit eight week lab course in which the students will continue to discover and master transmission, distribution and URD construction and maintenance skills.

LNWK 230. Transmission and Underground Electrical Distribution
Credits: 4
Prerequisite: LNWK 140.
Typically Offered: SPRING
The course includes the principles needed to function as a lineworker. Course includes URD cable procedures, distribution transformer installation, work procedures for overhead and underground construction, and related safety to accomplish the above.

LNWK 240. Electrical Apparatus and Transformers
Credits: 4
Prerequisite: LNWK 150.
Typically Offered: SPRING
Study of the fundamentals of power line apparatus. Subjects include transformer theory and connections, substation and switchyard functions, single circuit meter installation, basic understanding of current and potential transformers when used in metering applications. Also included is the basic understanding of voltage regulators, line fuses, line switches and oil circuit reclosers.

LNWK 260. Rope and Rigging
Credits: 2
Typically Offered: SPRING
Students learn and practice knot tying and splicing. Also included are the study of rope characteristics, different uses of rope, and basic rigging techniques.