

ELECTRIC UTILITY TECHNOLOGY (EUT)

EUT103 / Introduction to Rigging

2 Credits / 2.0 Periods for Lecture

Basic fundamentals of overhead rigging. Topics covered include elements of safe rigging, rope, knots and knot tying, use of a handline, and use of blocks and tackle. Exploration of variety approaches to basic rigging tasks. Prerequisites: [A grade of B or better in (MAT055, MAT056, and MAT057), or a grade of B or better in MAT09+, or appropriate district placement into MAT122], and a grade of C or better in ENG091, or ESL097, or appropriate district placement into ENG101.

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EUT104 / Equipment Safety and Operation

2 Credits / 2.0 Periods for Lecture & Lab

Operation and maintenance of equipment used in the utility industry. Identification and inspection of the major mechanical operations of equipment, as well as performance of pre-trip inspections on utility equipment. Emphasis on safety operations. Prerequisites: None.

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EUT105 / Introduction to Pole Climbing

1 Credit / 1.0 Periods for Laboratory

Proper climbing techniques for new climbers. Inspection and maintenance of pole climbing equipment, the equipment used in pole climbing, and how to maintain it. Prerequisites: None.

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EUT110 / Line Work I

2 Credits / 2.0 Periods for Lecture

Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on safety practices and procedures used in utility line work industry. Prerequisites: None.

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EUT112 / Basic Electricity: AC and DC

4 Credits / 4.0 Periods for Lecture & Lab

Reviews the basic principles of Alternating Current (AC) and Direct Current (DC) electricity. Examines the structure and function of AC and DC circuits including series, parallel and series-parallel circuits. Includes an overview of electric systems and their applications in the utility industry. Prerequisites or Corequisites: EUT110 and (EUT115 or CAD101).

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EUT115 / Field Training I

4 Credits / 12.0 Periods for Lecture & Lab

Practice in the basics of climbing and working on utility poles. Focuses on apparatus and equipment, using ropes and rigging equipment, installations of single and double cross arms, pole framing and setting, use of hand line and building single-phase lines. Prerequisites or Corequisites: EUT110 and EUT112.

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EUT210 / Line Work II

2 Credits / 2.0 Periods for Lecture

Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on hot sticking, tag out and lock out procedures. Emphasis on industry safety practices and procedures. Prerequisites: A grade of C or better in EUT110.

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EUT211 / Electrical Apparatus

4 Credits / 4.0 Periods for Lecture & Lab

Overview of transformers and how they operate. Reviews single and three-phase theory. Focuses on construction and hook-up of single-phase, three-phase, open Y and Delta transformer connections. Presents an overview of surge arresters, including applications and installation.

Prerequisites: A grade of C or better in EUT110, EUT112 and (EUT115 or CAD101). Corequisites: EUT215 or CAD164.

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EUT215 / Field Training II

4 Credits / 12.0 Periods for Lecture & Lab

Practice in the installation of electrical lines including transformers, reclosers, and service loops. Teaches rubber gloving, hot sticking techniques, and trenching of underground lines. Practice in the safe set-up and operation of equipment used in the line industry with a focus on the development of entry-level skills as drivers and operators. Includes procedures and practice in pole-top and bucket-truck rescues. Prerequisites: A grade of C or better in EUT110, EUT112, and EUT115.

Corequisites: EUT211.

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