

# Energy (NRGY)

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**NRGY 101. Intro to Sustainable Energy. 3 Credits.**

This course provides an overview of sustainable energies including solar, wind, hydro, biomass, geothermal and other emerging technologies. Students will learn the basic principles of each new technology. Students will also investigate renewable resources and their associated technologies. Formerly SET 101.

**NRGY 110. Fundmtl Hydraul/Pneu Systems. 3 Credits.**

This course is an introduction to hydrostatic systems used to control blade pitch and other mechanical actions on commercial wind generation equipment. Hydraulics will include hydraulics mathematics and formulas used in industrial hydraulic equipment, symbols and schematics of hydraulic systems, measurement of quantities used in maintaining hydraulic systems, typical components used in hydraulic systems and maintenance which must be performed on a routine basis in a hydraulic system. Specific safety requirements for hydraulic equipment and installations will be emphasized. Formerly SET 110.

**NRGY 120. Industrial Safety and Rigging. 3 Credits.**

This course provides an overview of safe industrial practices and basic rigging techniques. Formerly SET 120.

**NRGY 130. Fundmtl of Mechanical Systems. 3 Credits.**

This course covers energy industry mechanical systems at the component level. Topics covered include repairing a basic mechanical system, familiarity with basic tooling, and understanding gears and rotational relationships. Formerly SET 130.

**NRGY 210. Wind Technician Safety. 4 Credits.**

This course builds on the safety topics covered in the Industrial Safety and Rigging course and focuses on safety requirements and techniques common in wind energy technician jobs. Formerly SET 210.

**NRGY 220. Wind Turbine Equipment. 3 Credits.**

This course introduces common wind turbine components and equipment. The mechanical systems that make up the subsystems of wind turbines will be covered in addition to structural characteristics and aerodynamic principles. Formerly SET 220.

**NRGY 230. Wind Turb Operations & Maint. 3 Credits.**

This course exposes students to real-world scenarios that may be encountered in the workplace. Practice of installation, operation, maintenance, troubleshooting, and repair of wind turbine electro-mechanical systems are all included in this course. Formerly SET 230.

**NRGY 1391. Special Topics. 12 Credits.**