

# ENERGY SCIENCE (ENSC)

## ENSC 110 Energy in Perspective

**Description:** Scientific principles and historical interpretation to place energy use in the context of pressing societal, environmental and climate issues.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Prerequisite for:** ENSC 311; ENSC 395

**ACE:** ACE 9 Global/Diversity

## ENSC 220 Energy Systems and Sustainability

**Description:** Overview of energy systems, including energy sources, transformations, efficiency, and storage; includes fossil fuels, biomass, wind, solar, nuclear. Review the sustainability and the environmental trade-offs of different energy systems. Application of the scientific method to make decisions about energy systems.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** SPRING

**Prerequisite for:** ENSC 311

**ACE:** ACE 4 Science

## ENSC 230 Energy and the Environment: Economics and Policy

**Crosslisted with:** AECN 230

**Description:** Introduction to the economics of energy. How the economic system determines production and consumption. The linkages between economic and environmental outcomes. How future energy use can be influenced by economic, environmental, trade, and research policy.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

**Prerequisite for:** ENSC 311

## ENSC 300 Energy Science Seminar

**Description:** Overview and evaluation of existing energy problems and solutions, covering technological, environmental, economic, business, and political issues.

**Credit Hours:** 1

**Max credits per semester:** 1

**Max credits per degree:** 1

**Grading Option:** Graded with Option

## ENSC 311 Energy Science Study Tour

**Prerequisites:** ENSC 110, ENSC 220, and ENSC 230

**Description:** Identification of energy related enterprises that represent the breath of the industry and prioritizing these as candidates for inclusion in the tour.

**Credit Hours:** 1

**Max credits per semester:** 1

**Max credits per degree:** 1

**Grading Option:** Graded with Option

## ENSC 395 Internship in Energy Science

**Prerequisites:** Sophomore standing; ENSC 110; and permission.

**Description:** Structured practical experience under the supervision of an energy science professional.

**Credit Hours:** 1-3

**Min credits per semester:** 1

**Max credits per semester:** 3

**Max credits per degree:** 5

**Grading Option:** Graded with Option

## ENSC 496 Independent Study in Energy Science

**Prerequisites:** Sophomore standing and permission.

**Description:** Individual or group project in research, literature review, or extension of course work.

**Credit Hours:** 1-3

**Min credits per semester:** 1

**Max credits per semester:** 3

**Max credits per degree:** 6

**Grading Option:** Graded with Option

## ENSC 499H Honors Thesis

**Prerequisites:** Good standing in the University Honors Program and permission. AGRI 299H recommended.

**Notes:** Requires conducting a scholarly research project and writing a University Honors Program or undergraduate thesis. Letter Grade Only

**Credit Hours:** 3-6

**Min credits per semester:** 3

**Max credits per semester:** 6

**Max credits per degree:** 6

**Grading Option:** Graded