



**OLD DOMINION UNIVERSITY**

FRANK BATTEN COLLEGE OF  
ENGINEERING AND TECHNOLOGY

I D E A FUSION

## Energy Engineering Interdisciplinary Minor

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for more information and to apply.

## Overview

The Interdisciplinary Minor is for students who would like to learn about energy engineering fundamentals, socio-environmental impacts of energy systems, renewable energy, and novel energy engineering technologies. The Minor will enhance their abilities to integrate knowledge from different disciplines with concepts used in energy engineering and offer the students the opportunity to be recognized for study in this growing interdisciplinary field.

### The Minor program will:

- ✓ Expose students to energy engineering fundamentals and a system approach to energy systems and their sociological, economic, and environmental impacts
- ✓ Enhance students' ability to integrate knowledge in relation to various energy technologies and primary resource vectors such as fossil, nuclear, and renewables
- ✓ Expose students to novel energy engineering concepts and technologies such as smart grids, integrated generation systems, storage, transmission, and distribution systems
- ✓ Foster a better understanding of public policies to provide greater momentum to the energy industry
- ✓ Teach the environmental impacts of the various energy systems

## Eligibility

- The Minor is open to students in all Majors, and will be especially applicable to those in Engineering, Physics, Chemistry, Ocean and Earth Sciences, and Environmental Health

## Course Requirements

- Twelve credit hours at the 300 or 400 level.
- A 2.00 or better grade point average in all Minor courses

Select four courses from the following list of 3 credit hour courses. Only one (1) course can be applied to both the student's Major course of study and to the Minor.

CEE	459	Biofuels Engineering
CET	355	Sustainable Building Practices
ECE	303	Introduction to Electrical Power
ECE	403	Power Electronics
ECE	471	Introduction to Solar Cells
ECON	447W	Natural Resource and Environmental Economics
EET	370T	Energy and Environment
EET	483	Introduction to Smart Grids
EET	485	Electrical Power Systems
ENGN	411	Energy Management and Policy
ENGN	412	Fundamentals of Energy Conversion and Transmission
MAE	411	Mechanical Engineering Power Systems Theory and Design
MAE	413	Energy Conversions
MAE	416	Introduction to Solar Energy Engineering
MAE	430	Solar Thermal Engineering
MET	300	Thermodynamics
MET	450	Energy Systems
MET	471	Nuclear Systems
OEAS	415	Waves and Tides
PHYS	415	Introductions to Nuclear and Particle Physics