

ENERGY ENGINEERING, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description

The minor in Energy Engineering is designed to provide students in engineering, science, and energy business and finance (EBF) with additional courses, exposure, and experiences to the principles and applications of energy engineering. Courses available to students include thermal sciences; petroleum and natural gas processing; renewable/sustainable energy; chemistry of fuels; electrochemical, chemical, and nuclear energy conversion processes; physical processes in energy engineering; air pollution; and green engineering and environmental compliance. As a result, the selection of this minor can provide additional career options for students in a wide range of offerings at Penn State.

What is Energy Engineering?

Energy engineering is a multidisciplinary field of engineering that combines principles of materials, mechanical, electrical, and chemical engineering, along with environmental science, systems thinking, and economics, to address the challenges and opportunities of energy production, conversion, storage, distribution, and utilization. Energy engineers are equipped with the requisite knowledge and skills to design, analyze, and optimize energy systems for efficient, sustainable use. Energy processes include the extraction of natural resources, such as oil and gas, as well as renewable or sustainable energy sources, including solar power, wind, biofuels, and hydropower.

You Might Like This Program If...

- You aspire to be a lifelong learner, problem solver, and leader in the energy industry.
- You excel at math, science, and engineering and seek a broad overview of energy fields.
- You are interested in a well-rounded education in all facets of the energy market, including renewable energy.