

PHYSICS 161: THE PHYSICS OF *ENERGY AND THE ENVIRONMENT*

WINTER 2023



COURSE DESCRIPTION

Modern civilization uses vast amounts of energy. What do we use it for? How does energy use impact the environment? Why are energy and climate so deeply connected?

In Physics 161, we'll investigate the science behind energy use. We'll focus especially on the principles underlying **transportation** and **climate change**. The course is designed for **non-science majors**. There are no science-course prerequisites, and we'll develop the ability to make deep insights with simple math. The audience of the course is intentionally very broad; all of us will be the decision-makers of the future – businesspeople, writers, policy makers, or at least voters – who will be faced with complex choices having to do with energy and society. In addition to exploring important areas of contemporary science, a key goal of the course will be to better understand the *process* of science, i.e. how we know what we know, a perspective especially useful for discussions of climate change.

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