This course provides an introductory overview of the current and future roles of carbon-based fuels, nuclear fission, hydroelectric, solar and wind as the energy sources that power modern civilizations. Topics include introductory concepts of power and energy, fuel combustion, electromagnetism, nuclear fission and fusion, thermodynamics, and simple quantum physics. Students will apply scientific theories and principles by analysis of current issues and problems. Laboratory: Students will explore energy conversion by building working models and gathering data using inquiry based approaches. Information will be used to analyze problems and draw conclusions in the realm of green energy.

"We simply must balance our demand for energy with our rapidly shrinking resources. By acting now we can control our future instead of letting the future control us."

~ Jimmy Carter

No politics. No spin. Just the science of energy, its use, and production.