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# COLLEGE OF EARTH AND ENERGY ADMINISTRATED PROGRAMS

### **Undergraduate Certificate**

· Sustainable Energy Systems, Undergraduate Certificate

#### Courses

## SES 2113 Fundamentals of Earth Systems, Energy, & Sustainability 3 Credit Hours

Prerequisite: MATH 1503. A comprehensive exploration of key topics related to climate, energy, and sustainability. Study of the carbon cycle and earth system processes at multiple temporal and geographical scales. Introduction to fundamental principles of energy systems, covering diverse energy forms and their conversions. Students will develop the knowledge and skills to analyze, design, and implement sustainable energy solutions. (F)

## SES 2123 Energy in Society: A Systems Perspective on Energy Transitions 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. Explores how energy systems can be viewed from a social perspective. Combines several academic approaches on society to present a comprehensive overview of the components of and historical changes in energy systems. Reviews ethical theories to help identify issues of moral concern in existing energy systems, and ways energy transitions can address them. (Sp) [III-SS].