RENEWABLE ENERGY - ESF MINOR

Coordinator: Dr. Tim Volk

The development of sustainable sources of energy has become a critical national and global issue due to concerns about the quality and quantity of the different potential resources, energy security, and potential impacts of each on the environment and human health. It is essential that our society and energy professionals understand the production and conversion of different forms of energy, their current and future supplies, the markets and policy mechanisms that regulate their supply, and the associated impacts on the environment for each fuel. In the past both traditional and renewable energy sources have been studied one resource at a time and usually from the perspective of a single discipline. This minor provides students an opportunity to examine different sources of traditional and renewable energy simultaneously in the context of our total energy use using a systems perspective. Students are exposed to views from a variety of disciplines which allows them to consider a wide array of issues related to current and future energy supply and use.

The Renewable Energy minor is available to all ESF and Syracuse University undergraduate students (except students who are in the Sustainable Energy Management Major and Environmental Science's Renewable Energy option) who have a GPA of 2.70 or better by the end of their sophomore year. The minor requires a minimum of 15 credits, 12 of which are required courses. The remaining 3 credits can be selected from a list of suggested courses.

Code	Title	Credits
Required Courses		**12**
SRE 325: Energy Systems		
SRE 337: Energy Resources Assessment		
SRE 479: Life Cycle Assessment		
CME 305: Sustainable Energy Sys/Bldgs OR SRE 441: Biomass Energy		
Suggested Courses (other courses may be used to meet this requirement with approval of minor coordinator)		**3**
CME 305: Sustainable Energy Sys/Bldgs OR SRE 441: Biomass Energy		
ECH 202: Principles of Mass and Energy Balance		
ECH 212: Engineering Thermodynamics		
ERE 380: Energy Systems Engineering		
EST 427: Environmental and Energy Auditing		
FCH 360: Physical Chemistry I		
SRE 416: Sustainable Energy Policy		
SRE 422: Energy Markets and Regulation		
SRE 454: Sustainable Energy Fin&Analysis		
SRE 481: Advanced Life Cycle Assessment		