## Sustainable Energy Systems, Graduate Certificate

The Graduate Certificate in Sustainable Energy Systems focuses on the integration of energy systems engineering technology with sustainable building systems, including the design and operation of buildings with minimal energy and environmental impact.

This four-course graduate certificate seeks to provide students with opportunities to apply the fundamentals of engineering knowledge and skills to analyze energy systems as they relate to sustainable engineering building design with a focus on renewable energy with LEED certification or with a focus on industrial ecology, including life-cycle analysis and technical cost modeling.

## **Program Requirements**

Complete all courses and requirements listed below unless otherwise indicated.

Title	Hours
Sustainable Engineering Systems for Buildings	4
Fundamentals of Energy System Integration	4
Title	Hours
	8
Hydropower	
Energy Storage Systems	
Electrochemical Energy Storage	
Wind Energy Systems	
Solar Thermal Engineering	
	Sustainable Engineering Systems for Buildings Fundamentals of Energy System Integration Title Hydropower Energy Storage Systems Electrochemical Energy Storage Wind Energy Systems

## **Program Credit/GPA Requirements**

16 total semester hours required Minimum 3.000 GPA required