

# Energy Programs at Santa Clara University

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Santa Clara University has integrated energy and sustainability courses into both the undergraduate and the graduate curriculum and offers additional opportunities for students to gain design experience.

## Power Electronics

- Power conversion fundamentals
- Hands-on laboratory experience in switching regulators and power devices
- Project-based learning of DC to DC converter applications

Example of student project: course newsletter



## Renewable Energy Certificate

- 50% of program in power systems
- Required components in both renewable energy and sustainability

## Master of Science in Sustainable Energy

Multidisciplinary program requires:

- 2 foundational courses in Energy Systems
- 3 courses in Sustainability
- Electives in energy areas with discipline specific emphasis

## M.S. Core

The core requirement of three 2-unit courses is common to all M.S. degrees.

- Emerging Topics in Engineering (includes Energy Systems and Sustainability)
- Entrepreneurship
- Engineering and Society

## Graduate Minor in Science, Technology, and Society

The minor is designed to help students gain a deeper understanding of the influence of engineering on society. Students take at least one course in three of the four core areas:

- Sustainability and Engineering
- Social and Philosophical Issues in Science and Engineering
- Engineering and Ethics
- Science and Religion

## Solar Decathlon

•A multidisciplinary undergraduate SCU design team competed in the 2007 and 2009 U.S. Department of Energy's Solar Decathlon competitions, and placed third in both.

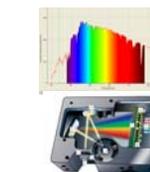
•Selected for 2013 competition



## Latimer Energy Laboratory:

The Latimer Scholars program brings in students interested in sustainable energy as freshmen to work with and be mentored by upper division and graduate students.

Professor Tim Healy, Director of the Latimer Energy Laboratory takes initial current and voltage measurements on a recently acquired Solyndra solar panel.



In the Latimer Energy Laboratory a spectrum of the sun is obtained using an Ocean Optics USB4000XR spectrometer.