

Sustainable Energy



SCU OMC-8301 1,000 1/2013

Unique Program Features

Faculty from Industry. Seventy-five graduate engineering faculty members work in Silicon Valley and maintain a strong industry connection. In addition to their business perspective, they are instrumental in helping students connect with Bay Area engineering companies for internship and career opportunities.

Teaching Methodology. SCU faculty members use a wide variety of teaching methods to maximize students' learning experience, including discussion sessions, small group coaching, problem-driven seminars, individual instruction, on-line materials, learning guides, and tutorials.

Project-Based Curriculum. The program features a heavy reliance on project-based learning, case analyses, and industrial practices, so coursework is immediately applicable to responsibilities at work.

Team Orientation. Teamwork is fundamental to the program, just as it is in the workplace. Collaborative learning equips students with the technical, managerial, and communication skills necessary to succeed in any career path.

Student Services for Working Professionals. SCU recognizes the pressures that part-time students experience in balancing competing demands on their time. We are dedicated to streamlining administrative processes by providing the highest level of student services.



Engineering Graduate Programs

Founded in 1912, the School of Engineering educates tomorrow's technical leaders in small and rigorous classes taught by expert faculty members. Our outstanding graduate programs offer master's, engineer's, and Ph.D. degrees, as well as open university and professional certificate programs.

Education Fitting Your Work Schedule, At Your Own Pace

Santa Clara University provides full-time students and busy working professionals in Silicon Valley with various education options to match their personal needs and work schedules, including:

- **Degree Programs**—full-time and part-time
- **Certificate Programs**—full-time and part-time
- **Open University**—take only the courses that interest you

To accommodate our students' busy work and internship schedules, all of our graduate engineering classes are held outside of normal business hours, with early morning classes at 7 a.m. to 9 a.m., evening classes starting at 5 p.m. and 7 p.m., and weekend classes. Our flexibility allows you to complete the program at your own pace.

For further information, please contact:

Graduate Engineering Services
 Santa Clara University
 500 El Camino Real
 Santa Clara, CA 95053
 408-554-4313

www.scu.edu/engineering/graduate

FSC
 Logo



The Jesuit University in Silicon Valley

Sustainable Energy Graduate Program



Mojave Desert Wind Farm

Sustainable Energy is a relatively new discipline that aligns perfectly with Santa Clara University's dedication to promoting academic excellence, engagement with Silicon Valley, justice, sustainability, and global understanding.

The School of Engineering is committed to educating ethical, proficient engineers to lead the way to a sustainable future. A graduate certificate in renewable energy and a multi-disciplinary master's degree in sustainable energy are offered to enable Silicon Valley's professionals to meet the changing demands in energy and to fulfill a pressing need in the rapidly growing renewable energy market in our Valley and in the world.

Our program furthers Santa Clara University's commitment to fashioning a world that is just, humane, and sustainable.

Our Graduate Program

Designed to meet the needs of both the working professional taking classes part-time and the full-time student, our program offers a full array of courses during early morning, evening, and weekend hours to accommodate the busiest schedules while allowing daytime hours for work or study.

Flexibility extends to our course offerings. Because we draw from a rich pool of highly qualified lecturers from industry, we are able to keep our students current with cutting-edge technologies, techniques, and trends.

The School of Engineering offers both a Master's Degree in Sustainable Energy and a Certificate in Renewable Energy.

Master of Science in Sustainable Energy

The master's degree program is designed to extend the technical breadth and depth of an engineer's knowledge. The interdisciplinary nature of the curriculum for the master's program allows students to begin their studies with a common core of energy and sustainability courses and complete it with an interdisciplinary capstone project. Students are encouraged to take in-depth courses from either civil, computer, electrical, or mechanical engineering.

A minimum of 45 units is required for the master's degree. Units are distributed as follows:

- **Mathematics Core**—8 graduate units
- **Sustainable Energy Core**—10 graduate units
- **Sustainable Energy Concentration**—6-13 graduate units
- **Electives**—14-21 graduate units

These courses satisfy the graduate core. Sustainability courses are designed to enrich a student's understanding of global responsibilities and ethical decision making. The degree does not require a thesis, but students may include one in their program and receive up to nine units for that work. Lists of faculty advisors for the different emphasis areas are available in the various engineering departments.

Admission to the program will generally be granted to those students who demonstrate superior ability in meeting the requirements for their master's degree. Students interested in this program should seek individual advice from the program advisor.

Certificate in Renewable Energy

Renewable energy, the fastest-growing sector of the energy field in California, brings together principles and practices from engineering, environmental science, and economics. Silicon Valley, home of the world's largest cluster of renewable energy companies and green investors, offers fertile ground for those who wish to take advantage of the tremendous career opportunities of the future.

The Certificate in Renewable Energy equips both students and professionals in Silicon Valley with the knowledge necessary to enter the field or advance an established career in the renewable energy arena.

Required coursework consists of 17 quarter units. Nine of these units are core requirements and the remaining eight units include at least one course in renewable energy and one in sustainability. See the Graduate Bulletin for course options: www.scu.edu/academics/bulletins/engineering/

Doctor of Philosophy

Students who have earned the Master's Degree in Sustainable Energy may then pursue a Ph.D. in any of the following departments: Civil, Computer, Electrical, and Mechanical Engineering.



Santa Clara University Smart Microgrid