

Sustainable Energy Strategies - Environmental Studies / Sustainable Energy San José State University, ENVS 133, Section 01, Fall 2024

Instructor: Dr. Dustin Mulvaney (pronouns: he/him), Professor, Environmental Studies
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Email: dustin.mulvaney@sjsu.edu
Office hours: [Monday 2–3 PM, Tuesday 2–3 PM](#) or by appointment
Class Days/Time: Tuesday 3–5:45 PM
Classroom: DMH 164
Prerequisites: ENVS 119 (preferred, not required)

Course Description: This course will provide students with a comprehensive overview of energy efficiency, energy conservation, and energy generation opportunities for a sustainable energy economy. Students will assess the physical and social sustainability of energy deployment. The class is designed to be interdisciplinary, putting conversations in environmental sociology, political ecology, and science & technology

<p>Low Carbon Electricity Systems</p>	<p>Jim Lazar, Teaching the Duck to Fly, Second Edition. https://www.raonline.org/wp-content/uploads/2016/05/rap-lazar-teachingtheduck2-2016-feb-2.pdf</p> <p>Hoffacker, M. K., Allen, M. F., & Hernandez, R. R. (2017). Land-sparing opportunities for solar energy development in agricultural landscapes: a case study of the Great Central Valley, CA, United States. <i>Environmental Science & Technology</i>, 51(24), 14472-14482.</p>
<p>8</p> <p>Low Carbon Mobility</p>	<p>Sustainable Energy Transitions Chapter 8</p> <p>Sperling, D., & Eggert, A. (2014). California's climate and energy policy for transportation. <i>Energy Strategy Reviews</i>, 5, pp.88-94.</p> <p>Listen: Podcast, interview with Union of Concerned Scientists and Professor David Tilman on biofuels. https://www.kalw.org/post/one-planet-what-are-environmental-impacts-biofuel-production#stream/0</p>

9 Low Carbon Industries and the Built Environment	Sustainable Energy Transitions Chapter 9 U.S. Department of Energy. https://www.energy.gov/industrial-technologies/doe-industrial-decarbonization-roadmap
10 Sustainable and Just Energy Systems	Sustainable Energy Transitions Chapter 10 Listen Cultures of Energy podcast: 166 – Kyle Powys Whyte http://culturesofenergy.com/166-kyle-powys-whyte/
11	Individual Research Paper Presentations
12	Individual Research Paper Presentations
13	Research Activity
14	Team Presentations

Canvas & MYSJSU Messaging: You are responsible for regularly checking the canvas emails and messaging system through <http://my.sjsu.edu> and <https://sjsu.instructure.com>

Course Goals and Student Learning Outcomes

At the end of this course, students should be able to:

- Understand the opportunities for renewable and alternative energy deployment.
- Understand and assess the renewable energy resource base on Earth.
- Describe basic principles to improve efficiency and design of energy delivery, recognize opportunities to reduce energy consumption, and promote sustainability.
- Assess basic economic, government policy, and social equity dimensions of alternative energy options

Environmental Studies Library Liaison: Peggy Cabrera, Peggy.Cabrera@sjsu.edu

https://libguides.sjsu.edu/environmental_studies

Classroom Protocol: You are expected to come to every class on time.

available at <http://www.sjsu.edu/aars/policies/latedrops/policy> Students should be aware of the current deadlines and penalties for dropping classes. More information is available at the [Advising Hub](http://www.sjsu.edu/advising) at <http://www.sjsu.edu/advising>

Course Requirements & Assignments: SJSU classes are designed such that in order to be successful, it is expected that students will spend a minimum of forty

University policy on academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The [University Academic Integrity Policy S07-2](http://www.sjsu.edu/senate/docs/S07-2.pdf) at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct) is available at <http://www.sjsu.edu/studentconduct>

Instances of academic dishonesty will not be tolerated.

Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you wou