



1. Title: **Energy Efficiency/Renewable Energy Degree**

2. Summary of Goals-Learning Outcomes:

The Energy Efficiency and Renewable Energy (EERE) program at Golden West College is designed to provide formal training for individuals who seek entry into the Energy Efficiency Assessment Service field. Students will learn to conduct energy audits, and to establish energy efficiency benchmarks for physical infrastructures to help utilize resources more efficiently and reduce cooling and energy consumption in buildings and processes. Students will also learn to provide analyses and recommendations to help efficiently upgrade and expand the power, cooling, and space to support new equipment or design a new facility.

Student Learning Outcomes:

- Explore career opportunities and paths within the associated industries.
- Understand the safety, environmental, and social impacts of solar energy use.
- Compare and contrast current renewable energy conversion technologies.
- Apply theoretical knowledge in a realistic environmental studies work setting.
- Solve passive AC and DC electrical circuits by using basic circuit theory and related mathematics.
- Solve problems by using and transferring sketches to computer aided drawing hardware and software.
- Demonstrate meeting and exceeding customer needs and expectations through teamwork and effective communication.

3. Course Listing

Required courses for the major:

Year 1

Fall Semester

ENVS G100, Introduction to Environmental Studies	3.0 units
ET G100, Electrical Fundamentals: AC-DC Circuits	4.0 units
DRFT G105, Basic Engineering Drafting I - CAD	3.0 units

Year 1

Spring Semester

ENVS G133, Energy Audit I	4.0 units
ENVS G170, Renewable Energy Sources and Applications	3.0 units
Mgmt G155, Customer Service for the 21st Century	3.0 units
ENVS G190, Practicum	1.5 units

Recommended Electives

ENVS G160, Solar I-Thermal	4.0 units
ENVS G162, Solar II- Photovoltaic	4.0 units
Biology G120, Man and Disease	3.0 units
Chemistry G110, Introduction Chemistry	5.0 units
Comm Studies G108, Introduction to Communication	3.0 units
Ecology G100, People and their Environment	3.0 units
World Languages G180 /or G185	5.0 units

Required Subtotal:	21.5 units
Completion of GE Requirements:	21-41 units
Additional Electives (as needed to reach 60)	_____
Degree Total	60 units