CURRICULUM GUIDE
2012-2013

RENEWABLE ENERGY AND SUSTAINABLE DEVELOPMENT

Certificate of Accomplishment in Renewable Energy and Sustainable Development

Requirements for Certificate of Accomplishment:

a) Complete satisfactorily the courses listed for the particular certificate.

b) Complete at least 50% of the required units at Ohlone College.

c) Maintain a 2.0 grade point average.

RENEWABLE ENERGY AND SUSTAINABLE DEVELOPMENT

Students completing this program will examine strategies to efficiently and cleanly utilize our planet's natural resources to produce energy, food, and urban habitats. This program focuses on living and growing sustainably without degrading the environment so that future generations of all species may thrive.

This Certificate of Accomplishment signifies that students have completed coursework in biological, human, socioeconomic, and political principles as they relate to and are influenced by energy. The student will acquire knowledge and skills in the design and operation of energy systems, energy policy, with an emphasis on non-renewable and renewable energy systems. These skills may assist or enhance their work in areas such as energy management, the design of small to medium size energy systems, sustainable development and renewable energy research. The courses include an emphasis on a scientific understanding of the environment, social and economic concepts, and an awareness of the behaviors that protect or damage the earth and its resources. On completion of this certificate, students will have the ability to better understand their relationship with the planet and obtain an understanding of how their behavior (including energy and natural resource use) affects the environment they inhabit. This certificate also provides an excellent background for the various careers in the fields of environmental studies, environmental sciences, public policy, and energy management.

Student Learning Outcomes

1. Describe the current global energy situation as it exists today and society's response to it.
2. Define what a non-renewable and a renewable energy source is.
3. Calculate non-renewable and renewable energy sources in terms of their viability, usability, and sustainability.
4. Plan and design various non-renewable and renewable energy sources for current and future applications.
5. Interpret the economic and social implications of energy use across the globe.

ENVS-104	Solar Photovoltaic Design and Installation	3
ENVS-105	Energy: Development and Sustainability	3
ENVS-106	Wind Energy: Design and Development	3
ENVS-107	Introduction to Sustainable Agriculture	3
ENVS-109	Urbanization: Towards Green Communities	3
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