

Oakland University

## ENERGY MANAGEMENT CERTIFICATE PROGRAM



### ABOUT OU'S ENERGY MANAGEMENT CERTIFICATE PROGRAM

This six-week program will educate professionals from any organization interested in reducing energy costs, boosting bottom line performance and becoming more competitive. Students will learn to:

- Understand energy usage and options that lead to cost and energy savings.
- Apply sustainable principles to reduce costs and/or enhance corporate responsibility.
- Acquire practical skills to evaluate, analyze and implement the most efficient energy choices.

#### Topics include:

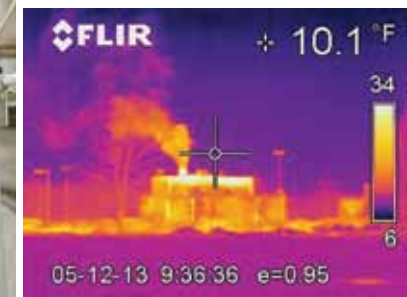
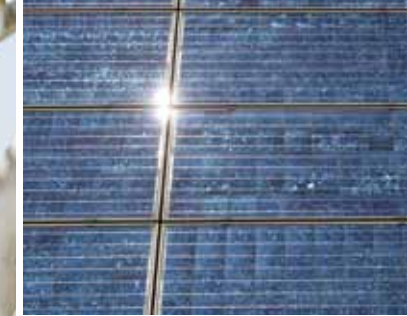
- Energy principles
- Business strategy and management
- Energy audit process
- Energy technology
- Application of lean principles and Six Sigma
- Decision modeling and procurement
- Modeling and performance analysis
- Establishing and managing an energy management program

#### Who should attend:

- Engineers; technicians; facility, maintenance and energy managers; design professionals; green sales representatives; architects, contractors, subcontractors; and others seeking a program that integrates business and management perspectives
- Business professionals seeking a program with an engineering foundation
- Any professional or individual interested or involved in the green energy field

The program's \$2,000 cost includes all materials and lunches. Classes are held Fridays and Saturdays from 9 a.m. to 5 p.m.

To learn more, check program dates or to register, visit [oakland.edu/energymgmt](http://oakland.edu/energymgmt), or contact Maureen Callaghan at [mpcallag@oakland.edu](mailto:mpcallag@oakland.edu) or (248) 412-3235.



### MODULE DESCRIPTIONS

#### Fundamentals of Energy and Energy Management (EM1)

In the first module, participants gain an overview of energy supply and usage, discuss rationale for energy management, and outline principles of effective energy management. Students will review energy conservation principles and emphasize effective use of energy to enhance a firm's competitive position in the market. This will include examining the role of energy in the firm's overall strategy, its business chain and the corresponding energy value chain.

#### Analysis of Energy Alternatives (EM2)

Here, participants are introduced to energy auditing as a means to determine energy usage in their own organizations, discuss available energy technologies to meet their organization's energy demand and conduct an economic analysis to determine more efficient alternatives. Students also will learn about statistical analyses of process data, application of lean principles and Six Sigma methodology in energy systems.

#### Implementation of Energy Strategies (EM3)

Participants will put what they learned in EM1 and EM2 into action by working on an energy management project. The module includes a facility tour to observe various concepts at work. Students will learn how to establish and maintain an energy management program in their own organizations, and about relevant energy frameworks, standards and practices.

School of Business Administration  
School of Engineering and Computer Science



MANAGING AND ENGINEERING A  
SUSTAINABLE ENERGY ENTERPRISE



### TYPICAL MODULE SCHEDULE

The program typically spans eight or nine weeks. Each module runs for two weeks. There are usually breaks before the start of modules two and three. Check [oakland.edu/energymgmt](http://oakland.edu/energymgmt) for the latest schedule.

Week	Module	Day
1	EM 1	Friday
	EM 1	Saturday
2	EM 1	Friday
	EM 1	Saturday
	Break	Friday
3	EM 2	Friday
	EM 2	Saturday
	Break	Friday
4	EM 2	Friday
	EM 2	Saturday
	Break	Friday
5	EM 3	Friday
	EM 3	Saturday
	6	EM 3
EM 3		Saturday

### LEARN FROM THE EXPERTS

Students will benefit from the credentials and expertise the diverse staff of engineering and business faculty experts brings to the program. The faculty members offer a distinguished record of research, scholarship and experience. To read comprehensive biographies of each faculty member, see [oakland.edu/energymgmt](http://oakland.edu/energymgmt).

### GOING GREEN, GROWING JOBS

In transitioning to a new energy economy, a growing number of regional organizations are developing processes, products and services necessary to adapt to changing regulatory, tax, supply-chain and demand environments. As a result, the emerging clean energy sector is poised to expand significantly. From 2000 to 2010, the number of clean energy jobs grew by 9.1 percent nationally. By 2038, the number of jobs is predicted to reach 4.2 million — quintupling the current count.

To support this economic transition, Oakland University's School of Business Administration and School of Engineering and Computer Science are partnering to deliver a professional certificate program that integrates management and engineering perspectives. The Energy Management Certificate Program prepares engineering and business professionals to differentiate themselves in their careers and help their organizations become sustainable enterprises.

### ABOUT OAKLAND UNIVERSITY

#### School of Business Administration

OU's SBA sustains its 40 years of educational excellence by remaining relevant to the ever-changing global business environment and providing students a distinctive educational experience that integrates classroom learning with real-world business experience and research. Its accredited business school offers undergraduate and graduate degrees, as well as special programs that satisfy many educational interests while supporting employment needs. The SBA at OU is home to the Center for Integrated Business Research and Education (CIBRE), an academic research center that integrates research experts, business leaders, and industry, government and other key stakeholders. CIBRE serves as a catalyst for transforming the region's economic future, educating a workforce to find success in it, and driving success in a rapidly changing global marketplace.

#### School of Engineering and Computer Science

The SECS at OU offers instruction leading to degrees at the bachelor's, master's and doctoral levels, as well as professional education programs. With an outstanding faculty dedicated to preparing leaders for the 21st century workplace and society — as well as for research in their fields of specialization — the SECS offers close student-faculty interaction, small classes and individualized attention. In fulfilling its mission, the SECS addresses the needs in southeast Michigan for the education of engineers and computer scientists, development of research programs and fulfillment of the demands for professional service.



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[oakland.edu/energymgmt](http://oakland.edu/energymgmt)