



## **Syllabus: Sustainable Facility Management** **Green Business Operations Certificate Program**

### 1. Course Description

There is a great interest around the world in creating “green” products and even services. Some of that energy is focused on creating and operating “green” real assets. Until recently most new sites and buildings were designed for beauty and lowest initial cost. Many consume large amounts of energy and utilize non-renewable resources during construction and operation. Many organizations are now setting new policies for incorporating “green” or sustainable practices into their asset management strategies. The operational aspects of such new sites and facilities are challenging because of new equipment, operating procedures, suppliers, and requirements.

This is an overview of the Facility Management responsibilities, policies, and practices that are involved with implementing and/or managing real property that has sustainable goals connected to it. It identifies those competencies needed by the Facility Management function to properly design, operate, and maintain the site and buildings within the scope of their responsibilities. The 18 hour course will utilize a combination of classroom techniques (presentation, discussion, team projects, case studies, and guest speakers) to give the students a full understanding of the issues and complexities of Sustainable Facility Management.

### 2. Learning Objectives

- a. Session 1 Objectives (3 class hours)
  - i. Learn the terminology of SFM
  - ii. Understanding the role of FM
  - iii. Understand policy development and implementation
  - iv. Techniques for working with management and employees
  - v. Preparing for setting goals and measurements
  - vi. Introduce team project: case study
- b. Session 2 Objectives (6 class hours)
  - i. Understand the methodologies for designing the site and facility for sustainability. Utilize guest speaker(s).
  - ii. Strategies for using external services providers
  - iii. Strategies for using external criteria for design (e.g. LEED)
  - iv. Panel of service/product providers: Greening your services
- c. Session 3 Objectives (3 hours)
  - i. Understand facility commissioning and retro-commissioning for sustainability
  - ii. Strategies and practices for effective energy reduction and management
  - iii. Strategies and practices for effective water management practices
  - iv. Strategies and practices for effective waste management practices



**SACRAMENTO STATE**  
COLLEGE OF CONTINUING EDUCATION

- v. Review a case study on commissioning.
- d. Session 4 Objectives (6 hours)
  - i. Organizing the operation and maintenance function
  - ii. Operating and maintaining a sustainable site and facility
  - iii. Developing an effective relationship with outsourced providers. Guest speaker.
  - iv. Strategies for assuring compliance with policies and procedures
  - v. Selecting operating performance criteria and measures
  - vi. Team Case Study presentations
  - vii. Final Exam
- 3. List of Topics
  - a. Facility Management roles and responsibilities
  - b. Standards and regulations for sustainable operations
  - c. Sustainable site management practices
  - d. Sustainable design of facilities & systems
  - e. Commissioning and Re-commissioning
  - f. Operations & maintenance practices
  - g. Energy management
  - h. Waste management
  - i. Water management
  - j. Indoor air quality
  - k. LEED evaluation & certification
- 4. Readings
  - a. HOK Guidebook to Sustainable Design
- 5. On-line resources
- 6. Learning Evaluation Methods
  - a. Class Contribution: Your participation and contribution is imperative to the development of a collaborative learning environment. Your class contribution will require that you prepare for the class meetings, that you listen actively in class and present your ideas and questions with thoughtfulness. Your contributions will be valued and welcomed in the (1) discussions of the case studies, (2) questions and comments to the guest speakers, (3) questions and comments to the lecture presentations.
  - b. Final Examination