

UCIRVINE | EXTENSION

Facilities Management Certificate Program



University of California, Irvine | P.O. Box 6050, Irvine, CA 92616-6050
www.extension.uci.edu

UC Irvine Extension Certificate Program in Facilities Management

OVERVIEW

Facility management is the practice of coordinating the physical work environment with the people and work of an organization. This discipline integrates the principles of business administration, architecture, and the behavioral and engineering sciences.

This certificate program furthers the understanding of this diverse field with an innovative series of courses focusing on design and management of facilities, from concept to installation, to long-term efficient use.

WHO SHOULD ATTEND

- Professionals who are involved in the design or management of facilities, building operations, maintenance operations, construction, or occupational safety.
- Facilities professionals who wish to increase their knowledge in specific areas in preparation for the IFMA Certified Facility Manager (CFM) examination.

CERTIFICATE REQUIREMENTS

A certificate is awarded upon completion of 18 credit units (9 required and 9 elective credit units) with a grade point average of "B" or better.

PROGRAM BENEFITS:

- Broaden your skills and knowledge of all areas relating to facilities management.
- Obtain valuable insight about the impact of technology on the management and design of efficient facilities.
- Gain knowledge to help prepare for credential exams such as IFMA Certified Facility Manager (CFM).

PROGRAM FEES

Your total cost may vary substantially depending on the specific courses you choose. Starting at \$425 to \$685

Course fees	\$4700
Candidacy Fee	\$125
Textbooks ¹	\$500
Parking (\$34 per quarter)	\$136
Total Estimated Cost	\$5461

Your actual cost could be more or less than this amount (most likely less because this is a conservative estimate).



UC Irvine Extension's Facilities Management Certificate program is an IFMA Recognized Program.

Participants will acquire a body of knowledge consistent with IFMA's underlying principles on facility management.

Prepare yourself for one of the following IFMA designations:

- The **Facility Management Professional (FMP) designation** is an *entry-level, knowledge-based credential* geared towards FM's with less than five years experience. Many courses satisfy the educational component for IFMA's FMP designation. Call (949) 824-5414.
- The **Certified Facility Manager (CFM) designation** is a *competency-based certification* recognizing proficiency in all areas of FM.

Please visit the International Facility Management Association (IFMA) at www.IFMA.org

IFMA members receive a 10% discount!

Note: You may take as many individual courses as you wish without enrolling in the full certificate program.

UC Irvine Extension
Certificate Program in Facilities Management

COURSE DESCRIPTIONS

REQUIRED COURSES

SOCECOL X499 Fundamentals of Facilities Management (3 units) Get an overview of the principle duties of a facility manager. Learn the practical applications that will help you understand the business aspects of facilities management. Gain an understanding of the diverse responsibilities and decision-making processes from building infrastructure to fleet services. Acquire the insight needed to meet budget restraints while improving productivity, efficiency, and employee quality of life issues. Guest speakers and classroom workshops help you master these skills. A field trip to the UC Irvine Central Plant highlights the course.

SOCECOL X499.1 Facilities Design and Space Planning (3 units) Master the successful applications of facilities design including defining the requirements of a project, developing design strategies, implementing corporate philosophies and methodologies, and understanding the Project Development Process. Gain the knowledge that will help you increase your confidence as a project leader and assure the success of your future projects. Whether you are managing multiple, small departmental relocations or anticipating a large project, these professional skills will assure you of greater success.

MGMT X442.7 Supervision for Facilities Professionals (3 units) Facilities managers manage both facilities operations and personnel. Gain practical knowledge that can be used on the job to enhance your leadership skills and improve productivity. Explore topics that include: a supervisor's role within an organization, verbal and written communication skills, problem-solving techniques, managing a budget, strategic planning, ethics, and team development. If you supervise or manage within a facilities management organization or in an environment where technical, professional, or trades people are working, this course is for you.

ELECTIVE COURSES

ENGRMAE X429.1 Principles of Heating, Ventilation, Air Conditioning (HVAC) (3 units) Gain practical knowledge on heating, ventilation, air-conditioning and refrigeration systems as applied to building comfort systems. Enhance your knowledge of

all aspects of HVAC-R systems. Explore topics that include: thermodynamics, psychometrics, forced air and hydronic heating systems, LEED certification levels, and current issues regarding building sustainability. Facilities managers, building engineers, and maintenance and service mechanics will find this course of interest. A tour of the Central Plant at UC Irvine is conducted to inspect different refrigeration systems.

MGMT X494.8 Financial Analysis for Facility Professionals (3 units) Financial management skills are a must have in a facilities management career in our current economic environment. This course will not only guide you through the basic terminologies and tools, it will enhance all the talents you currently bring while educating you thoroughly to perform financial analysis with a facility management twist. You will reap the benefits of being able to comprehend and perform financial analysis through practical experience with real life financial analysis scenarios. Acquire the skills that can help you reason, process, develop and present both an operating and capital budget along with analysis to help you sell your projects, such as: Payback, Life-Cycle Costing, Return on Investment (ROI), Return on Assets (ROA), Net Present Value (NPV), and Present Value (PV). You will also explore alternative financial analysis strategies to assist in establishing cost effective practices.

ENGR X441.1 Interpreting and Analyzing Blueprints (1.5 units) Learn how to read and understand construction documents for use in planning, and residential and commercial development. Understand orthographic projection and plan development; common drafting practices, dimensioning, typical symbols and abbreviations. Examine different types of plans such as floor plans, foundation plans, elevations, section details and schedule sheets. Mastering the symbolic language of these contract documents will help you to clarify work assignments.

ENGR X441 Uniform Building Codes (3 units) Learn to use building codes to design safe and accessible environments and to create drawings that meet minimum plan checks requirements. Participants complete in-class exercises addressing ADA requirements, exiting requirements, occupancy groups, construction types, energy conservation as required by Title 24, and minimum standards for fire-retardant materials. Other topics covered include the evaluation of real estate principles using basic code analysis, and the validation of finance budgets using estimates.

UC Irvine Extension

Certificate Program in Facilities Management

SOCECOL X499.11 Real Estate for Facilities Managers (1.5 units) Facility Management (FM) professionals often deal with real estate considerations to maximize value for their organization. Increase your knowledge of the various roles and responsibilities of the facility manager in fulfilling these needs through lectures, readings, team assignments/case studies, and discussions with guest speakers involved in facilities management. Enhance your understanding of special considerations for site selection, utilities, entitlements, finances, and working with real estate brokers to meet organizational goals.

SOCECOL X490 Process Principles of Emergency Management (3 units) All-hazards disaster planning and preparedness is the foundation for a coordinated, timely and well-executed disaster response that applies to a broad range of events. Get an overview of emergency management with a focus on the roles of local, county, state, and federal government; non-profit agencies; and the business community. Gain an understanding of the key principles of emergency management within the framework of mitigation, preparedness, response, and recovery. Enhance your knowledge of risk and threat assessments, preparing emergency plans, managing response, and developing and implementing recovery plans. Learn about the regulations and standards that govern emergency management, such as SEMS, NIMS, and NFPA 1600. The principles of emergency management are reinforced with lessons learned from real-life events, and guest experts augment the learning experience.

SOCECOL X498.59 Emergency Management: Business Continuity Planning (1.5 units) Gain an understanding of the concepts necessary for an organization to address in preparing for a natural or man-made catastrophic emergency event (fire, terrorist act, hazardous material spill, internal sabotage, etc.). Explore the practical steps necessary to develop and test a plan to assure continuity of business operations. Learn about business continuity planning professional practice subject areas including: risk evaluation and control, business impact analysis, developing and implementing business continuity plans, awareness and training programs, and exercising and maintaining business continuity plans.

SOCECOL X498.34 Managing Indoor Air Quality (1.5 units) Protecting indoor air quality is critical in occupational safety and health, and facilities design and management. Learn about the threats to healthy indoor air in homes, offices, schools, and buildings. Gain an

understanding of the risks of chemical and biological attacks on air systems in buildings. Learn to develop plans to protect people in a building from airborne agents released by terrorists. Enhance your knowledge of the sources of pollutants, "sick building syndrome," factors affecting the effectiveness of ventilation systems, regulatory requirements, and program development.

SOCECOL X499.8 Sustainability and Green Initiatives for the Workplace and the Environment (1.5 units) Gain an understanding of how organizations are taking responsibility for the impact of their activities on employees, customers, communities, and the environment. Learn how to manage interdisciplinary relationships within an organization to develop and implement workplace programs that encompass initiatives supporting corporate social responsibility (CSR), sustainability, and green initiatives. Learn a practical approach to applying CSR and sustainability principles, and presenting data to decision makers for maximum impact. Enhance your knowledge of topics that include: elements of CSR and sustainability programs; organizational impact and risk factors; voluntary and regulatory initiatives; certification and special interest systems; environmental impact analysis; and methods and resources to solve problems.

ENGRCEE X469.5 Introduction to Industrial and Commercial Fire Protection (3 units) Fire protection is a field that requires a broad spectrum of knowledge across multi-discipline principles. Gain an understanding of fire protection principles and their impact on industrial and commercial facilities to save lives and protect property. Enhance your knowledge of fire protection requirements for various types of commercial and industrial facilities. Learn how to evaluate fire hazards, conduct arson investigations, and recommend improvements to maximize life safety and minimize property loss.

ENGR X469.6 Fundamentals of Safety and Health in the Workplace (4 units) Gain an understanding of the safety engineering techniques and practical skills essential to safety professionals. Learn about topics including: biological stresses, hazard and exposure control, toxicology, property exposure and control, radiation, ventilation, life safety aspects of fire, hearing conservation, machine guarding, system safety, and environmental health. The workshop setting of this course features a combination of lectures and open discussion, giving you the opportunity to clearly understand all material. Reading assignments and testing in class will also help you prepare for the

UC Irvine Extension
Certificate Program in Facilities Management

Certified Safety Professional (CSP) and the Occupational Health and Safety Technologist examinations

EECS X490 Introduction to Communications and Networking (3 units) Increase your knowledge of the basic principles of data communications. This course provides a comprehensive overview of the following topics: analog and digital transmission, voice, video and data processing, open systems interconnect (OSI) model, client-server architectures, bridges and routers, local area and wide area networks, and modern state-of-the-art technologies. An introduction to Ethernet, TCP/IP, other high-speed protocols, broadband communications, and wireless communications is also presented. Participants actively learn through case studies that provide "real-world" scenarios of modern data communication systems.

LIST OF COURSES

Catalog Number	REQUIRED COURSES (9 Units)
SOCECOL X499	Fundamentals of Facilities Management (3 units)
SOCECOL X499.1	Facilities Design and Space Planning (3 units)
MGMT X442.7	Supervision for Facilities Professionals (3 units)
	Elective Courses (choose 9 credit units)
ENGRMAE X429.1	Principles of Heating, Ventilation, Air Conditioning (HVAC) (3 units)
MGMT X494.8	Financial Analysis for Facility Professionals (3 units)
ENGR X441.1	Interpreting and Analyzing Blueprints (1.5 units)
ENGR X441	Uniform Building Codes (3 units)
SOCECOL X499.11	Real Estate for Facilities Managers (1.5 units)
SOCECOL X490	Principles of Emergency Management (3 units)
SOCECOL X498.59	Emergency Management: Business Continuity Planning (1.5 units)
SOCECOL X498.34	Managing Indoor Air Quality (1.5 units)
SOCECOL X499.8	Sustainability and Green Initiatives for the Workplace and the Environment (1.5 units)
ENGRCEE X469.5	Introduction to Industrial and Commercial Fire Protection (3 units)
ENGR X469.6	Fundamentals of Safety and Health in the Workplace (4 units)
EECS X490	Introduction to Communications and Networking (3 units)