

## FACILITY MANAGEMENT TRAINING PROGRAM COURSE CATALOG

The FM Training Program (FMTP) is designed specifically for veterans and active duty military. The FMTP is centered on a practical and action approach to learning, by integrating practice and projects into the curriculum that help supplement and enhance participants’ industry experience. Each course is designed to target the fundamental concepts of FM. Arizona State University offers training and other educational programs, with the FMTP being specifically created for veterans and active duty military. The FMTP is considered a ‘Correspondence Training’ type of education program based on the US Department of Veterans Affairs’ website.

The FMTP consists of ten (10) courses. This document provides more details about the courses and specific topics that are covered in each, including the assignments and books.

Each course was created to allow participants to both learn the material via instructional videos, targeted and relevant reading material that was specifically selected for each topic, and use what was learned on hands-on projects/assignments.

Most of our participants are currently working in the FM field and use the projects at work. This immediate use of the concepts/teachings allows the participant to better understand/learn. The projects also serve as an immediate return on investment for their company and career. We have had participants make huge organizational contributions and it is not uncommon for our participants to move their careers forward during this course. The estimated time to complete the full **FM Training Program is 12-18 months.**



Courses Available:

Course	Title	CEUs	LUs	AIA HSW	Suggested Prerequisite
OM100	Operations & Maintenance	5	45	–	None
PM100	Facilities Project Management	5	45	–	OM100
RE100	Real Estate: Facility Condition & Assessment Including ADA	5	47	–	OM100
BEM100	Building Energy Management	5	52	–	OM100
QP100	Quality & Process Improvement	4	40	–	OM100

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<b>FB100</b>	<b>Finance &amp; Business</b>	<b>4</b>	<b>25</b>	<b>–</b>	<b>OM100</b>
<b>LS200</b>	<b>Leadership &amp; Strategy</b>	<b>3</b>	<b>32</b>	<b>–</b>	<b>OM100</b>
<b>EP200</b>	<b>Emergency Preparedness</b>	<b>3</b>	<b>22</b>	<b>22</b>	<b>OM100</b>
<b>TF200</b>	<b>Technology in Facility Management</b>	<b>4</b>	<b>28</b>	<b>–</b>	<b>OM100</b>
<b>ORG200</b>	<b>Organizational Change Management</b>	<b>3</b>	<b>30</b>	<b>–</b>	<b>OM100</b>
<b>RI200</b>	<b>Roofing Inspections</b>	<b>Coming Soon</b>			
<b>PF200</b>	<b>Procurement Fundamentals</b>	<b>Coming Soon</b>			

## Operations & Maintenance Course

**Course code: OM100**

**Suggested prerequisite: None**

**Approximate duration: 6-11 weeks**

**5 CEUs, 45 LUs**

### Overview

Building operations and maintenance (O&M) is a broad, diverse, and technically challenging aspect of facility management (FM). It takes a career to become an expert. This Course will help you to develop a working knowledge to key systems, elements, and technology that will give you a 30,000-foot level view of a facility operation. You will gain exposure to tools that can help you increase efficiency, save money, and add value to a facility's operations and maintenance program. From this exposure, you will be able to ask good questions, evaluate alternatives, and make critical decisions.

- Electrical Equipment & Systems
- Outsourcing Consideration
- Landscaping and Grounds
- Conveyance Systems
- Water Treatment
- Capital Planning
- Utilities Infrastructure Electrical Equipment & Systems
- Outsourcing Consideration
- Landscaping and Grounds
- Conveyance Systems
- Water Treatment
- Capital Planning
- Utilities Infrastructure

### Topics:

- History of Maintenance
- Program Organizational Structure
- Program Operations
- Operations and Maintenance Plans

### Units:

1. Organizing for Maintenance Operations
2. Facility Operations & Maintenance
3. Equipment & Systems Operations
4. Other Maintenance Considerations & Capital Investment

**Readings:** Facility Manager's Operation & Maintenance Handbook

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- Preventive & Predictive Maintenance
- Indoor Air Quality
- Technical Improvement Plans
- Equipment, Systems and Maintenance Operations

**Assignments:**

- Units 1-4 Course Checkpoints
- Building Assessment Report (project)

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## Leadership & Strategy Course

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**Course code: LS200**

**Suggested prerequisite: OM100**

**Approximate duration: 4-8 weeks**

**3 CEUs, 32 LUs**

### Overview

Facility management professionals combine knowledge of innovative technologies and business management practices to lead a wide variety of projects and personnel. The goal of this Course is to enable participants to become responsible leaders through organization, leadership, and current/innovative management techniques. As part of this Course, you will get to know more about yourself as a leader by taking personality assessments and developing your core leadership philosophy through reading materials and reflections.

### Topics:

- Leadership versus Management
- Increase your strengths
- Personality Assessment
- Develop strategic thinking skills for possible outcomes
- Leadership influence verses alignment
- Core values for effective leadership
- Building teams with diverse skill sets
- Empowering for maximum productivity
- Motivational techniques

### Units:

1. Leadership & Strategy (part 1)
2. Leadership & Strategy (part 2)

**Readings:** The DNA of Leadership by William Badger and pick a your own leadership book

### Assignments:

- Individual Core Values Worksheet
- Personality Assessment
- Leadership Books Wisdom Overview

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## Facilities Project Management Course

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**Course code: PM100**

**Suggested prerequisite: OM100**

**Approximate duration: 4-12 weeks**

**5 CEUs, 45 LUs**

### **Overview**

Project Management concepts and principles form the foundation of common Facility Manager (FM) responsibilities and tasks. The course will cover development of project scope, schedules, budgets and communication plans from a FM's perspective. The assignments are geared toward development of a "Project Manager Handbook," which will be a useful resource and reference guide for best practices and templates/tools.

### **Topics:**

Project Management techniques and applications

- AIA standards
- Scope of Work
- Cost estimates
- Project Schedules
- Construction Document Forms
- Request for Proposals (RFPs)
- Life Cycle Cost Analysis

### **Units:**

1. Organizing for Maintenance Operations
2. Facility Operations & Maintenance
3. Equipment & Systems Operations

**Readings:** Supplemental Reading Handout (compilation of relevant articles from a variety of sources)

### **Assignments:**

- Comprehensive Checklist
- Work Authorization (WA) Form
- RFP (Request for Proposal) Bid Form
- Construction Documents
- Life cycle Analysis Cost
- Project Manager's Handbook (collection of corrected previous assignments)

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## Emergency Preparedness Course

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**Course code:** EP200

**Suggested prerequisite:** OM100

**Approximate duration:** 4-8 weeks

**3 CEUs, 22 LUs, 22 AIA HSWs**

### Overview

This course will provide you with an understanding of the key roles and responsibilities of Emergency Preparedness and Emergency Management Planning.

### Topics:

- Planning, management and support of an Emergency Preparedness Program/Plan
- Development of Emergency Management Plan
- Impacts of upon the Business
- Risks & Security Threats
- Technology Systems & Services

### Units:

1. Emergency Preparedness
2. Emergency Preparedness & Emergency Management Plan

**Readings:** Supplemental Reading Handout (compilation of relevant articles from a variety of sources)

**Assignment:** Emergency Management Plan Report

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## **Real Estate: Facility Condition & Assessment Including ADA**

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**Course code: RE100**

**Suggested prerequisite: OM100**

**Approximate duration: 4-11 weeks**

**5 CEUs, 47 LUs**

### **Overview**

Property and Facility Managers are expected to manage/oversee real estate as an asset. Therefore, Property and Facility Managers need to understand real estate principles and practices so they can contribute to decisions as they relate to the use of real estate. Additionally, the condition of a building in which people work affects their working morale and safety. Property and Facility Managers are in a unique position to ensure the safety of building occupants. This Course focuses on evaluating the condition of buildings by the use of benchmarks like Deficiency cost, System Condition Index (SCI), and Facility Conditions Index (FCI). Additionally, during these assessments, it is common to uncover needed access updates and compliance with regulations, such as those contained in the Americans with Disabilities Act (ADA).

### **Topics:**

- Evaluating Real Estate Condition
- Utilizing Benchmark Measurements
- System Condition Index (SCI)
- Facility Condition Index (FCI)
- Americans with Disabilities Act

### **Units:**

1. Evaluating Real Estate Condition
2. Evaluating Real Estate Condition and Using Benchmarks
3. Access – the Americans with Disabilities Act

**Readings:** Supplementary Reading #1 – FCI, Supplementary Reading #2 – ADA

### **Assignments:**

- Calculating a Building Portfolio's Deficiency Cost
- Calculating a Building Portfolio's Facility Condition Index (FCI)
- Facility Condition Index (FCI) 10 Year Projection and Executive Summary

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## Building Energy Management Course

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**Course code:** BEM100

**Suggested prerequisite:** OM100

**Approximate duration:** 6-14 weeks

**5 CEUs, 52 LUs**

### Overview

Facility management professionals understand that energy consumption is an important aspect and financial constraint that reflects on overall performance. The goal of this class is to enable participants to understand energy management techniques in Facilities Management, such as identifying and performing efficiency evaluations on various heating, ventilation and air conditioning systems, and methods of adjusting equipment/systems for maximum performance. Participants will also understand techniques to maximize energy savings and performance.

### Topics:

- Energy Management Systems
- Energy Star
- Energy Calculations
- Electrical O&M for an Industrial Site
- Managing Site Electrical Power
- Energy Efficiency Programs
- Commissioning & Retro-Commissioning
- Energy Auditing
- Elements of a Presentation for the "C's"
- Summary of Energy Management

### Units:

1. Introduction to Energy Management  
Energy Metric & Management Tools
2. Energy Efficiency Measures
3. Implementation

**Readings:** Energy Management Handbook, 7th or 8th Edition, Steve Doty and Wayne C. Turner

ISBN-10: 142008870X

ISBN-10: 1466578289

### Assignments:

- Assess Your Building's Energy Performance
- Create and Complete an Energy Audit Checklist
- Executive Summary Report

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## Quality & Process Improvement Course

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**Course code: QP100**

**Suggested prerequisite: OM100**

**Approximate duration: 4-8 weeks**

**4 CEUs, 40 LUs**

### Overview

This Course will expose you to professionals in a variety of industries to understand process improvement, tools, methods, and techniques. It teaches an executive's perspective and how to deliver reports that are of practical use to a variety of stakeholders. This course not only intends to increase your technical knowledge of advanced concepts, but also will strive to assist you in taking a proactive leadership role in identifying value and improving the current "status quo."

### Topics:

- Strategic Thinking
- Identification, prioritization, and minimization of risk.
- Process Management
- Measuring value continuously
- Managing change
- Aligning resources
- Using best practices
- Maximizing Value & Best Value
- Processes for Accountability
- Performance Metrics

### Units:

1. Introduction to Quality Improvement
2. Process Management & Communication
3. Risk & Change Management
4. Quality, Accountability & Performance

**Readings:** Supplemental Reading Handout (compilation of relevant articles from a variety of sources)

### Assignments:

- Identify a Process Improvement Tool to Apply on a Project
- Implementation and Testing of Process Improvement
- Case Study Write Up

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## Finance & Business Course

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**Course code: FB100**

**Suggested prerequisite: OM100**

**Approximate duration: 4-11 weeks**

**4 CEUs, 25 LUs**

### Overview

The financial side of facility management (FM) is a subject that is critical to the core FM function. This Course will help you gain an overall understanding of how finance and business relate to FM. Common terminology, documentation, and procedures for best practices in budgeting, cost analysis and development of business cases are discussed. In this Course, you will create Financial Performance Indicators for your organization that are crucial to helping communicate the value and impact of decisions around assets, maintenance, and other key FM areas.

### Topics:

- Facility Management and Business
- Business Skills for Facility Managers
- Business Planning for Facility Management
- Financial Concepts for Facility Management
- Annual Budgeting
- Capital Budgeting
- Cost Containment
- Cost Justification
- Cost Analysis Tools

### Units:

1. Facility Management in the Context of Business
2. Business Planning for Facility Management
3. Basic Financial Concepts for Facility Management
4. Budgeting and Cost Analysis

**Readings:** The Facility Manager's Guide to Finance & Budgeting By: David Cotts and Edmund P. Rondeau  
ISBN 0814401597

### Assignments:

- Identification of Financial Performance Indicators
- Application of Financial Performance Indicators

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## Technology in Facility Management Course

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**Course code: TF200**

**Suggested prerequisite: OM100**

**Approximate duration: 4-8 weeks**

**4 CEUs, 28 LUs**

### Overview

Technology can often be an area of great need and opportunity for organizations, while at the same time being external to the field of FM. This Course will expose you to case studies of other successful FM technology endeavors in a variety of organizations, so you can learn from best practices. The successful FM is able to monitor and evaluate technology trends and innovation in order to leverage industry best for their organization.

**Readings:** The Facility Manager's Guide to Information Technology: Second Edition  
by Geoff Williams & Michael May

ISBN – 13: 978-1938780004

ISBN – 10: 1938780004

### Assignments:

- Current Technologies in Use Assessment
- Technology Review

### Topics:

- Overview of Information Technology (IT) in FM
- Trends, technologies, and key areas
- Case study #1 – University Mobile Deployment
- Case study #2 – A Tale of Two Hospitals

### Units:

1. Introduction to Information Technology (IT) in FM
2. Case Studies of Organizations

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## Organizational Change Course

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**Course code: ORG200**

**Suggested prerequisite: OM100**

**Approximate duration: 4-8 weeks**

**3 CEUs, 30 LUs**

### Overview

The implementation of a new process, practice, and/or tool may seem as a simple modification on the surface, but have true organizational change and transformational implications for a company. Process and software changes can have major impacts to employees' sense of the meaning of their job, future employment, and overall effectiveness. Successful companies have avoided the common pitfalls and developed effective change management strategies to guide their actions. This Course will expose you to the theories of change management, share recent research in the built environment, and share a case study of a typical change endeavor, so you can learn from best practices. The successful FM is able to craft a plan to avoid the common pitfalls of organizational change efforts. **Topics:**

### Topics

- The contracting environment in the industry.
- Organizational Change Theories.
- Research from the 500+ different organizations in the A/E.C industry.
- Case Study of Fortune 10 Company.

### Units:

1. Organizational Change Introduction.
2. Theories in Organizational Change.

### Readings: Leading Change by John P. Kotter

ISBN – 10: 9781422186435

ISBN – 13: 978-1422186435

### Assignments:

- Identify What Went Wrong for the Company in an Implementation Effort (select one case study, provided)

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## Roofing Inspections Course

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### Topics:

- Overview of the different roofing systems' products
- How to conduct an assessment of the roof
- Common areas of continued maintenance
- An overview of factors to consider in warranties
- Case Studies

**Coming Soon!!!**

## Procurement Fundamentals Course

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### Topics:

- How to effectively work with procurement agencies
- Different types of solicitations
- Learn how to understand and navigate the legal red tape
- Common pitfalls of bad RFPs
- How to not be fooled by consultants selling their products
- Effectively identifying the scope and scope of work

**Coming Soon!!!**

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