

Northwestern University
Executive Management for Design and Construction

Facilities Management
PROJ_MGT 470

Course Objective:

This course covers a variety of activities, skills, and knowledge needed to lead a facilities management organization. Students learn in an interactive setting about issues that directly contribute to business strategy and physical plant operations. Case studies and assignments are used to teach capability and resiliency and their importance to organizational missions and safety.

Week-by-week description of the course:

Week 1 Facilities Management Overview

Topics will include the functions and organization of facilities management – planning, operations, maintenance, and budget control. Staffing models and reimbursement models are discussed. Resiliency (reliability, redundancy and recoverability) and capability (capacity, compliance and credibility) are introduced as the central themes for the rest of the course. A case study highlighting staffing models is used and participants are given an assignment to solve a staffing example problem.

Week 2 Codes and Requirements

Code compliance is the foundation of any successful facilities management organization. Air quality, water safety and life safety codes are discussed in terms of resiliency and capability. Participants are introduced to an understanding of consensus codes and how to deconflict local, state and national codes. Participants are given an assignment to research specific code requirements.

Week 3 Maintenance

Building on Week 2, participants are introduced to methodologies for building successful maintenance models in terms of resiliency and capability. Life cycle analysis for determining repair and replacement decision making is discussed. A case study is used to highlight the operational risk matrix and participants are given an assignment to update their staffing models from Lesson 1 to include lessons learned from their operational risk matrix and maintenance model.

Week 4 Customer Service and Work Input

Participants are introduced to customer service and the importance of capturing and prioritizing service calls. Techniques for diffusing irate customers are discussed and in-class exercises and case studies are used to better understand empathetic listening. Work input and prioritization of service calls are discussed.

- Week 5 Central Services and Plant Operations**
Basic chilled water, hot water, steam and electricity generation, distribution, and safety are discussed in terms of resiliency and capability. Participants are introduced to one-line and riser diagrams.
- Week 6 Energy and Sustainability**
Participants are taught how to benchmark and improve energy performance as part of a larger sustainability initiative. Case studies are used to demonstrate the links between energy performance, maintenance effectiveness, and code compliance.
- Week 7 Budget and Control**
Centrally funded, working capital and reimbursable financial models are discussed. Participants are taught how to build a budget using case studies and exercises. Control of overruns and overtime is discussed. Insourcing and outsourcing models are discussed. Participants are given an assignment to convert their staffing model into a budget.
- Week 8 Emergency Management and Standard Operating Procedures**
Participants use case studies to learn to prepare risk-mitigation strategies and procedures to both prevent and respond to emergencies. Loss of critical services and “snowballing” impacts are discussed in terms of resiliency and capability.
- Week 9 Leadership**
Participants learn basic differences between leadership styles and the importance of consistent interactions. Reward and disciplinary techniques are discussed for use in both union and open- shop personnel management.
- Week 10 Facilities Management Refresh**
The key points of the previous nine lessons are brought together as participants develop an understanding of the need to simultaneously manage the tactical and strategic demands of a functional facilities management organization.

Grade Determination:

Final Exam 30%
Homework..... 50%
Class Participation 20%

Text:

No text is required

Software:

Excel (spreadsheets), Word (documents),
PowerPoint (presentations)

NOTE: This course description explains the essence of the material covered. Canvas is the best source for the most up-to-date information about specific details for any given offering of the course.