

## Online Certificate in Maintenance Management

### **This certificate has three modules:**

Introduction to Managing Maintenance  
Planning and Scheduling Maintenance Activity  
Preventive and Predictive Maintenance

Next offering: Sept 14 – Oct 19, 2021  
Next offering: Jan 11 – Feb 8, 2022  
Next offering: May 3 – 31, 2022

### **Participants in this training program will learn to:**

- Identify the dominant patterns of maintenance management currently practiced by your department
- Understand the formulas, measures and techniques used to evaluate maintenance efforts
- Recognize when maintenance contracting and outsourcing can be of benefit.
- Understand how the quality improvement techniques can be applied to maintenance management efforts.
- Convince your management of the benefits of planning and scheduling maintenance jobs.
- Outline the complete planning process.
- Estimate crew size and manpower requirements.
- Calculate available hours from maintenance workers.
- Create a credible maintenance schedule accounting for all constraints.
- Understand the basics of preventive maintenance.
- Select and apply different predictive maintenance inspection techniques.
- Develop task lists based upon reliability programs.
- Choose whether interruptive maintenance or non-interruptive maintenance is best in a situation.

### **Who Should Enroll**

The certificate will benefit maintenance managers, maintenance directors, superintendents, supervisors, lead hands, CMMS (Computerized Maintenance Management System) managers, planners, engineers, and people who are in training for any of these positions. There is also an advantage to training representatives from operations and stockrooms for their perspective and input.

## Online Certificate in Maintenance Management

### Complete Certificate Outline

#### Introduction to Managing Maintenance (Next offering: September 14, 2021)

(This module is based on *The Handbook of Maintenance Management*, Second Edition by Joel Levitt, published by Industrial Press, NY)

#### Session 0 — Introductory Session

- A "get-to-know-you session," where the course format will be explained and general questions answered. It is recommended that all students be present online at this session.

#### Session 1 — Evaluating your operation

- Introducing assessment tools
- Identifying dominant patterns in departments

#### Session 2 — Maintenance metrics and KPIs (Key Performance Indicators)

- Understanding formulas, measures, and techniques to evaluate effort
- Anticipating maintenance efforts

#### Session 3 — CMMS (Computerized Maintenance Management System)

- Reviewing the technology
- Outlining capabilities of popular systems

#### Session 4 — Maintenance contracting and outsourcing

- Building partnerships with other groups
- Utilizing readers as a resource

#### Session 5 — Maintenance quality improvement

- Reviewing the field of quality improvement
- Applying Deming's ideas to maintenance

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### **Planning and Scheduling Maintenance Activity** (Next offering: January 11, 2022)

(This material is based on ***Maintenance Planning, Coordinating and Scheduling***, Second Edition by Don Nyman and Joel Levitt, published by Industrial Press, NY)

#### Session 1 — What is planning and why plan maintenance jobs?

- How to sell planning & scheduling to your management
- Where does the ROI (Return on Investment) come from?
- The nature of maintenance activities
- Metrics of planning and scheduling

#### Session 2 — Planning

- What are the steps in effective planning?
- Job safety analysis (JSA)
- Complete description of the planner's job
- The complete planning process

#### Section 3 — Estimating crew size & manpower requirements

- Estimation and slotting
- What are the contents of a complete planned job package?

#### Section 4 — Preparatory activity to scheduling

- Calculating available hours from maintenance workers
- Coordination with operations and coordination meeting

#### Section 5 — Scheduling maintenance work

- Job loading until available hours are used up
- Create a credible schedule accounting for all the constraints
- Job execution and feedback with job closeout and follow-up

## Online Certificate in Maintenance Management

### **Preventive and Predictive Maintenance** (Next offering: May 3, 2022)

(This material is based on *The Complete Guide to Preventive and Predictive Maintenance*, Second Edition by Joel Levitt, published by Industrial Press, NY)

#### Section 1 — Basic Understanding of PM (Preventive Maintenance)

- True breakdown costs
- Past sins
- What is PM?
- Understanding what PM is supposed to accomplish and the critical event
- Maintenance improvement curve
- Short repairs and high productivity
- Four types of task lists
- PM frequency and its effect on breakdown

#### Section 2 — TLC (Tighten, Lubricate and Clean)

#### Section 3 — Guidelines for involvement with predictive techniques

- P-F Curve
- Questions to ask before PdM (Predictive Maintenance)
- Oil analysis
- Vibration analysis
- Temperature measurement
- Ultrasonic inspection

#### Section 4 — Reliability enhancement programs

- RCM (Reliability Centered Maintenance)
- PMO (Preventive Maintenance Optimization)
- Task list development

#### Section 5 — Management of PM activity

- Access to equipment
- Interruptive maintenance and non-interruptive maintenance
- Metrics
- Outsourcing PM

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### **Certificate Requirements**

The certificate is awarded after the completion of the three modules, including all quizzes and final exams. The participants must attain a minimum of 65 percent for each module and an aggregate average of at least 75 percent in the program. The entire course is comparable to 12 days of seminar training. Therefore, the certificate will state that the recipient has earned 9 Continuing Education Units (CEUs) or 90 Professional Development Hours (PDHs). However, the course does not carry any college credits and cannot be used as part of a degree seeking program.

### **Course Materials**

The latest editions of the required books will be made available online to enrolled students at no additional cost.

Furthermore, students will have access to a library of a dozen online maintenance management and reliability textbooks, including other books by Joel Levitt and books by noted authors like Phillip Slater and Terry Wireman.

Additional course materials and copies of the lecture slides will be available for download from the class website.

### **Course Delivery**

This online class will be delivered using Zoom. Each session has related reading material followed by a quiz. It is recommended that students read the corresponding chapter in the textbook and the assigned online notes provided before the online session. During the 60-minute online session (starting Tuesdays at 6:00 p.m. Central Time), that section/chapter will be discussed and all questions answered. All sessions will be recorded and posted on the class website so that students who miss the live offering can watch the recordings.

### **Instructor**

Joel Levitt is a leading trainer of maintenance professionals. He has conducted over 500 training sessions for more than 15,000 maintenance leaders from 3,000 organizations in more than 20 countries. Since 1980 he has been the president of Springfield Resources, a management consulting firm that services clients of all sizes on a wide range of maintenance issues.

Joel has 25 years of experience in many facets of maintenance, including as a source equipment inspector, electrician and field service technician, and in process control design, maritime operations, and property management. Prior to that, he worked for a CMMS vendor and as an owner/manager in manufacturing.

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Joel is a frequent speaker at maintenance and engineering conferences and has written 10 popular maintenance management texts. He served on the safety board of ANSI and on the executive committee of the Miquon School. Joel is a member of AFE and the Vice President of the Philadelphia chapter.

### **Refund and Cancellation Policy**

A full refund of registration fees, less a \$30 administrative fee, will be approved if requested in writing and received at least two weeks prior to the start of your module. No refunds will be made after that date.