

# MAINTENANCE MANAGEMENT PROFESSIONAL CERTIFICATE PROGRAM



Developed and authorized by the Plant Engineering and Maintenance Association of Canada (PEMAC), the "Maintenance Management Professional Certificate Program" consists of eight modules. The program is designed for individuals aspiring to management positions in the maintenance field, those already in maintenance management and looking for formal training, as well as for individuals seeking full maintenance designation (MMP, Maintenance Management Professional), or those seeking only focused training in selected areas. While not mandatory, it is strongly recommended that the modules be taken and completed in the order in which they are listed.

There are no entrance requirements, however, it is strongly recommended that individuals have a high school diploma and a maintenance function at their workplace or prior trades related experience.

### Program Certification

Individuals who successfully complete all 8 Modules and are members of the Plant Engineering and Maintenance Association of Canada will receive the "Maintenance Management Professional" (MMP) designation from PEMAC.

The courses in this Certificate Program are approved for the Achievement in Business Competencies (Blue Seal) program through the Alberta Apprenticeship and Industry Training Department.

MMP courses qualify for Continuing Education Unit Credits for both Alberta and Ontario Water/Waste Water Operators.

The CTS (Course Training Standard) is a document that provides detailed information on the Learning Elements and Learning Outcomes of each lesson and each module and is available on the PEMAC website at [www.pemac.org](http://www.pemac.org) under the MMP tab.

### Credit for Prior Experience

In considering your goal to earn the MMP certification, you may think that you have already acquired some of the knowledge and skills selected for acquisition in any

of the MMP modules 2-7. If so, Prior Learning Assessment and Recognition may be for you. Obtaining recognition for prior learning can reduce the amount of classroom time required to obtain the MMP certificate. Please see the "PLAR" section of the MMP Course Training Standard at [www.pemac.org](http://www.pemac.org) for full details.

### Module 1: Maintenance Management Skills and Techniques

This module introduces the basic concepts of physical asset management and the latest developments and trends in effective maintenance practices. Provides the basic understanding of the strategic approach to achieving "Maintenance Excellence". Note: Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP101-01  
 Feb 8 & 9 M & T  
 8:30 - 4:30 pm Room: BL140  
 \$499.00 15 Hrs

Course Code: CEMMP101-02  
 Apr 22 & 23 Th & F  
 8:30 - 4:30 pm Room: BL140  
 \$499.00 15 Hrs

### Module 2: Production and Operations Management for the Maintenance Manager

This module links maintenance strategies with those of production and operations. Topics include an overview of planning and scheduling methods, inventory control, production management principles, quality control methods, and Lean improvement concepts such as TPM in a maintenance environment. Module 2 also provides an understanding of benchmarking and decision-making strategies for maintenance management.

**Note:** Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP102-01  
 Mar 1, 2, 22, 23 M, T  
 8:30 - 4:30 pm Room: BL140  
 \$995.00 30 Hrs

Course Code: CEMMP102-01  
 May 17, 18, June 7, 8 M, T  
 8:30 - 4:30 pm Room: BL142  
 \$995.00 30 Hrs

### Module 3: Human Resources Management for the Maintenance Manager

This module looks at how human resources practices relate to the maintenance environment. Topics covered include the role of human resources in maintenance management, meeting legal requirements, recruitment and selection, orientation training and employee development, proper application of performance appraisals, the union management interface, managing change through effective leadership, and managing safety in the workplace. Note: Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP103-01  
 Apr 15, 16, May 6, 7 Th, F  
 8:30 - 4:30 pm Room: BL142  
 \$995.00 30 Hrs

### Module 4: Accounting and Finance for the Maintenance Manager \*Revised\*

This module will focus on the application of accounting and finance principles as it pertains to the maintenance management role. The module will give you an understanding in the foundation principles of accounting and cover the four main pillars of accounting knowledge the maintenance manager needs to support a successful maintenance department. These four main pillars are: Project Analysis, Budgeting/Forecasting, Cost Analysis for Managerial Decisions, and MRO Inventory. Note: Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP104-01  
 Jan 27 W  
 Feb 11 & 12 Th, F  
 Mar 12 F  
 8:30 - 4:30 pm Room: BL142/140  
 \$995.00 30 Hrs

Course Code: CEMMP104-01  
 May 28 - Jun 18 F  
 8:30 - 4:30 pm Room: BL144  
 \$995.00 30 Hrs

# VIBRATION FOR NON-VIBRATION ENGINEERS

## Why take this course?

- If you need to know about vibration application in design, commissioning and operation stages of rotating equipment.
- If you need to know about predictive maintenance program of rotating equipment and its benefits.
- If you wish to increase your knowledge about vibration terminology in troubleshooting and analysis.

The course is designed for those who are interested to understand vibration troubleshooting and analysis. Including:

- Maintenance & Operation Managers
- Sales & Project engineers
- EPC companies' Engineers
- Maintenance foremen and machinists
- Engineers and technicians who intend to work in vibration.

## The course covers

- Basics of Periodical Waves
- Vibration Measurements and Units
- Vibration Transducers
- Main Elements in Vibration Engineer Report
- Typical Vibration Problems during design, commissioning and operation stages

The instructor, Abdullah Balhaddad, M.Sc. Engineering, University of Pittsburgh, has 15 years experience in vibration analysis and troubleshooting, both locally and internationally. Mr. Balhaddad is one of 55 certified Vibration Specialists (Cat III) in Canada ([www.cmva.com](http://www.cmva.com)).

Course Code: CEVIBAN100-01  
 August 27 F  
 10:00 – 4:00 pm BL142  
 \$450.00 + GST 5 Hrs

## Module 5: Developing and Implementing Maintenance Tactics \*Revised\*

This module focuses on maintenance efforts to ensure that physical assets safely, capably, reliably and repeatedly perform to their designed specifications. Focus is on techniques to develop maintenance tactics that will address how the assets are used, how they are likely to fail, the consequence of failure, and identifying maintenance tactics that are both feasible and worth doing. After developing tactics, the module will focus upon how tactics need to be implemented and their effectiveness tracked. Topics include failure mode and effect analysis and root cause failure analysis in addition to the RCM decision process.

**Note:** Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP105-01  
 Apr 13, 14, May 4, 5 T, W  
 8:30 - 4:30 pm Room: BL140  
 \$995.00 30 Hrs

## Module 6: Maintenance Planning and Scheduling \*Revised\*

Planning, scheduling and work coordination form the foundation to maintenance's ability to add value to the goods and/or services of their companies and customers. Effective planning and scheduling ensure that the right things are done at the right time using the right resources and the right tools in an effort to enhance process reliability while minimizing interruptions to production processes and/or services. This module provides a study of the fundamental principles of the planning and scheduling process in addition to the basics of planning, scheduling and work coordination methods. Upon completion of this module, participants will have a sound understanding of planning and scheduling tools and how to apply them to effectively transition from reactive to proactive maintenance and physical asset management. Key learning elements include effective use of resources, aligning maintenance activities with production or service schedules, developing and documenting maintenance strategies and integrating proactive maintenance tactics.

**Note:** Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP116-01  
 May 26, 27, W, Th  
 June 15, 16 T, W  
 8:30 - 4:30 pm Room: BL142  
 \$995.00 30 Hrs

## Module 7: Computerized Maintenance Management Systems \*Revised\*

Module 7 is a study of the features, benefits and the effective use of a CMMS or EAM computerized maintenance work management process. Topics include selection, implementation and optimization of a suitable computerized maintenance management system (CMMS) or Enterprise Asset Management system (EAM) in addition to ongoing support and upgrading of a CMMS/EAM based on changing requirements. Note: Textbook required for this module available for purchase through Keyano College Bookstore.

Course Code: CEMMP107-01  
**To be offered Fall 2010**

## Module 8: Capstone Course

Through the application of the key learning elements from the previous 7 MMP modules students apply the principles, latest concepts and techniques to a final project. Working in small groups or teams, students will select a project that will audit, assess and improve their current maintenance departments or develop a new maintenance strategy in their company or resolve a significant maintenance issue within their departments. There is also the option of developing a "Greenfield" maintenance strategy and program upon approval from the instructor. If the prerequisite of all previous modules having been completed, the assessment of the Capstone projects is intended to qualify students for their MMP certification and designation. Note: Students must successfully completed MMP Modules 1-7 before taking this course.

Course Code: CEMMP108-01  
**To be offered Fall 2010**