



iLearnReliability™ Condition Monitoring [CM] integrates crystal clear e-learning that teaches program setup and management, CBM objectives, detailed condition monitoring skills, lubrication contamination control and precision maintenance techniques to ensure not only early detection of problems but corrective action needed to reduce the likelihood of recurrence.





# CONDITION MONITORING

## **WHO BENEFITS**

iLearnReliability [CM] Condition Monitoring is intended for the entire team; from machinists and condition monitoring specialists to the managers that implement condition monitoring program as part of your plant reliability goals.

## **WHAT YOU LEARN**

The program is an all-in-one, subscription based training system that teaches your team everything needed to become competent at condition monitoring and will provide the necessary guidance to setup or revitalize your plant's condition monitoring program.





CONDITION MONITORING

# LEARN. LEAD. SUCCEED.

YOUR CONDITION MONITORING GOALS

As a condition monitoring professional or manager, you may be faced with starting a condition monitoring program or tasked to get a program back on track. There is a lot to know; multiple technologies, monitoring practices, analysis, fault reporting and trending, not to mention proper corrective and routine maintenance to reduce the likelihood of faults from recurring.

Where do you start? How do you get the knowledge you need, quickly and at a reasonable cost? And how do you convey that knowledge to your team quickly, easily and in a way that is understandable and memorable?

If you believe that your plant's condition monitoring team and leadership needs proper training that is both effective and cohesive across

both monitoring technologies and precision maintenance practices, then you need to find a resource that allows your program to thrive and contribute positively towards your plant's uptime and goals.

**That resource is iLearnReliability [CM].**



MAKE RELIABILITY A REALITY™





## iLearnReliability [CM]

iLearnReliability [CM] is an all-in-one, subscription based training system that teaches your team everything needed to become champions at condition monitoring, and will provide them the necessary guidance to setup or revitalize your plant's existing condition monitoring program.

iLearnReliability [CM] is based on the same Mobius Institute "Crystal Clear" training methodology that helps to make complex concepts easier to understand; through interactive software simulators, 3D animations

and our unique training style. All slides are narrated and illustrations are explained. The training takes students step-by-step through each topic, with quizzes at the end to help them assess whether they understood the key points.

All essential personnel can be trained online simultaneously or in groups based on their crafts or roles, making implementation of the training quick and cost effective throughout one plant or multiple sites.

### iLearnReliability [CM] Teaches:

- Condition Monitoring program startup and expansion
- Condition-based maintenance objectives & techniques
- Lubrication contamination control
- Vibration analysis
- Oil & wear particle analysis
- Infrared thermography analysis
- Ultrasound testing
- Motor circuit testing
- Precision shaft alignment
- Precision rotor balancing
- Proper fault reporting and trending
- How to develop program buy-in from peers and management





# BOOST YOUR PROGRAM

## BUILD A SOLID FOUNDATION FOR A NEW PROGRAM

You may be starting a new program, you have a lot of issues to deal with. iLearnReliability [CM] is a great place to start.

- Master the Condition Monitoring technologies
- Design a solid program from the ground-up
- Learn how to apply the right combination of technologies to each type of equipment
- Understand how monitoring frequency affects reporting outcome
- How to develop buy-in with management and the plant floor, to gain greater appreciation of your efforts and results
- Learn how to properly identify, report and trend fault conditions, and know when the right time for correction action is needed
- Learn about the application of precision maintenance and precision lubrication skills

## SUPERCHARGE AN EXISTING PROGRAM

Your plant may have been running a condition monitoring program for a while, but have not achieved the expected results, or it may have stalled due to lost expertise and manpower. iLearnReliability [CM] can help you:

- Gain expertise your staff no longer has
- Audit your program and identify its shortcomings
- Determine if you are applying the right CM technologies to each equipment type
- Design a proper monitoring schedule
- Learn how to properly document faults and saves so that management and co-workers will realize how valuable the program is
- Introduce precision maintenance and lubrication techniques into your program to reduce the reoccurrence of equipment failure
- Learn how to make believers out of co-workers that don't understand condition monitoring techniques



# Condition Monitoring Modules

[EE]

## ESSENTIAL ELEMENTS

The Essential Elements [EE] provide a very useful overview for the reliability engineer, maintenance and production staff, and supervisors of all kinds.

ID	TOPIC
EE-CBM	Condition Based Maintenance (CBM)
EE-VIB	Vibration Analysis
EE-UT	Ultrasound Testing
EE-IR	Infrared Thermal Imaging
EE-ALIGN	Alignment
EE-BAL	Balance
EE-CC	Lubrication Contamination Control

[MT]

## PROGRAM MANAGEMENT

The Management Training [MT] modules are intended for reliability engineers, PdM program managers and other people who are charged with implementing the Condition Monitoring program.

ID	TOPIC
MT-M-9	Establishing A New Vibration Monitoring Program
MT-M-10	Supercharging An Existing Vibration Monitoring Program
MT-CM-1	An Introduction To The Condition Monitoring Technologies
MT-CM-2	Vibration Analysis And Bearing Fault Detection
MT-CM-3	Airborne And Structure-Borne Ultrasound
MT-CM-4	Oil Analysis And Wear Particle Analysis
MT-CM-5	On-Line And Off-Line Electric Motor Testing
MT-CM-6	Infrared Thermography
MT-PM-1	Precision Shaft Alignment
MT-PM-2	Field Balancing
MT-PM-3	Precision Lubrication (and Contamination Control)

\*ILearnReliability [CM] vibration analysis training is a comprehensive e-learning course in vibration analysis, but is not intended to replace certified vibration analysis training according to ISO 18436. For training and accredited certification according to ISO 18436, please contact Mobius Institute.

[ST]

## SKILLS TRAINING

The Skills Training [ST] modules are very detailed and intended for the person who is actually involved with the condition monitoring technique or craft (alignment, balancing, etc.).

ID	TOPIC
ST-CM-1	Vibration Fundamentals
ST-CM-2	Accurate And Repeatable Data Collection
ST-CM-3	Diagnosing Common Faults With Spectrum Analysis
ST-CM-4	Vibration Analysis*
ST-CM-1	Precision Shaft Alignment
ST-CM-2	Field Balancing

[TT]

## TOOLBOX TALKS

Toolbox Talks [TT] are short and focused, and are written for anyone who would like a quick introduction to a condition monitoring technology or precision maintenance activity without getting into too much detail.

ID	TOPIC
TT-CM-1	Condition Monitoring And Reliability
TT-CM-2	Vibration Analysis
TT-CM-3	Ultrasound
TT-CM-4	Thermography
TT-CM-5	Oil Analysis And Wear Particle Analysis
TT-CM-6	Electric Motor Testing
TT-PM-1	The Benefits Of Precision Maintenance
TT-PM-3	Shaft Alignment
TT-PM-6	Precision Balancing
TT-PM-7	Precision Lubrication

## READY TO SEE IT IN ACTION?

Interact with our sample module demos at  
[www.mobiusinstitute.com/ILRCMsample](http://www.mobiusinstitute.com/ILRCMsample)



MAKE RELIABILITY A REALITY™

# MAKE RELIABILITY A REALITY.



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**MOBIUS INSTITUTE** is a worldwide provider of Reliability Improvement, Vibration Analysis and Precision Maintenance education for plant managers, reliability engineers and condition monitoring technicians, allowing plants to be successful in implementing Reliability Improvement programs through delivery of more easily understandable and comprehensive training of Reliability and Vibration Analysis via public, in-plant and online education programs. Mobius' has extensive experience and success in teaching reliability management and technical skills development topics since 1999. Mobius Institute is unique by delivering our Crystal Clear™ training methodology that uses innovative 3D animations and software simulations that make complex topics easy to understand. Mobius Institute has training centers in 50 countries and its certification body is ISO 18436-1 and ISO 17024 accredited and ISO 9001 certified.

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