



**Inclusive of  
Exam Fee &  
Printed course  
materials**

## **VCAT-III SENIOR VIBRATION ANALYST, ISO 18436-2 CATEGORY III**

### **COURSE OVERVIEW**

The Category III course is intended for people who are confident with spectrum analysis but who wish to push on and learn more about signal processing, time waveform and phase analysis, cross-channel testing, machine dynamics, and fault correction. If you wish to truly advance in vibration analysis and be able to run a successful condition monitoring team, then you are ready for this course.

- You will learn to diagnose all of the common fault conditions with rolling element and sleeve bearing machines, utilizing spectra, high-frequency detection techniques, time waveforms, phase readings, and other techniques to diagnose faults.
- You will also learn machine dynamics (natural frequencies, resonance, etc.), how to perform resonance testing, and how to correct resonance problems. The course also covers single and cross-channel measurement capabilities of your analyzer.
- And after completing the CAT-III course, you will be able to set up and run a successful vibration program and mentor the junior analysts.

Once you complete the training, you can take the exam with confidence, and become certified to ISO 18436-2 Category III via the internationally respected Mobius Institute Board of Certification [MIBoC].

The MIBoC certification is accredited to ISO/IEC 17024 - there is no higher standard. You will join thousands of other Mobius certified analysts globally.

**1.868.274.4716**

**[www.strategicreliabilitysolutions.com](http://www.strategicreliabilitysolutions.com)**

## VCAT-III CANDIDATE PROFILE

This course is intended for the vibration analyst who will:

- Have a minimum of 3 years of experience
- Have a senior role in the condition monitoring team
- Have others report to them to verify diagnoses
- Be responsible for the most complex fault conditions (with the possible exception of sleeve bearing, flexible rotor machines)
- Need to perform complex tests to validate fault conditions (e.g., resonance) and find a solution
- Want to be a leader of the vibration team or take a leading role in diagnosing faults and making repair recommendations
- Want to understand all data collector options, special test capabilities, all analysis tools and understand the widest range of fault conditions
- Seek to become certified to international standards (ISO-18436) by an accredited certification body
- Want to understand all condition monitoring technologies, how and when to apply them
- Want to understand machine dynamics (natural frequencies, resonance, ODS), how to perform resonance testing and how to correct resonance problems
- Use the training and certification as the next step in a rewarding career as a vibration analyst

Learn to be an effective vibration leader and master analyst - capable of managing the condition monitoring program, diagnosing the widest range of fault conditions, verifying and correcting resonance problems, performing complex balancing machinery - with advanced 3D animations and interactive simulations that make everything easy to understand.



Contact for pricing  
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## TOPICS

- Review of condition monitoring technologies and the ISO standards
- Signal processing and data acquisition
- Time waveform analysis
- Phase analysis
- Dynamics (natural frequencies and resonance)
- Testing for natural frequencies
- Operating Deflection Shape (ODS) analysis
- Modal analysis and intro to FEA
- Correcting resonances
- Rolling element bearing fault detection
- Journal bearing fault detection
- Electric motor testing
- Pumps, fans, and compressors
- Gearbox fault detection
- Corrective action
- Running a successful condition monitoring program
- Acceptance testing
- Review of ISO standards

The key is that with the VCAT-III course, you will transition from being a vibration analyst who should be supervised to a person who is capable of running the program, being a senior consultant, solving difficult problems, and taking a leadership role.



## FAST FACTS

### Compliance:

- Training and certification: ISO 18436-2
- Certification: ISO 18436-1, ISO/IEC 17024
- Training: ISO 18436-3

### Exam:

- Four hours
- 100 multiple-choice questions
- 70% passing grade
- Can be taken online

### Certification requirements:

- Training course completed
- 36-months of vibration analysis experience, verified by an independent person
- Have previously been certified to VCAT-II by a MIBoC approved certification body
- Pass the exam
- Valid for 5 years

### Pre-study:

- Access to the "Learning Zone" upon registration and payment
- Complete set of videos covering every topic
- An excellent way to be prepared and get the most from the course

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