



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

Duration

38 hours, typically over four days

Format

- Live public course
- On-site course
- Virtual online course
- Video distance learning online courses

What will you learn from taking this course?

There is a great deal to learn, but it will help you to perform your role with confidence. The topics covered in this course include:

- 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.

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 or in-person at the course

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

