



Course Catalog Number: Tsm-1  
Course Track: Sensors  
Course Title: Vibration  
Course Career Level: Intermediate

**Monday, August 26 | 8:00 AM - 12:00 PM | 1/2-Day AM (4 Hours)**

**Course Title: Dynamic Sensors and Calibration**

**Instructor: Patrick Timmons, The Modal Shop**

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**Abstract:** Vibration calibration class will dive into calibration theory, standards, and methodology for dynamic sensors as well as detailed construction of different sensor types and the operational theories behind them. Target audience is beginner to intermediate level.

**Learning Objective:**

1. Attendees will gain a greater understanding of calibration theory, standards, and methodology.
2. Attendees will gain a greater understanding of different sensor types.
3. Attendees will gain a greater understanding of the importance of calibrations and gain hands on experience while participating in relevant labs.

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**Instructor Curriculum Vitae (CV):** Patrick J. Timmons is the calibration systems engineer at The Modal Shop, an MTS Systems Corporation. Patrick graduated from Michigan Technological University in 2009 with a Bachelor of Science in mechanical engineering. Joining the Modal shop in 2010, Patrick worked to develop the linear motor-based shaker for low frequency long stroke calibration applications. Patrick currently serves as engineering support and development within TMS calibration product group ranging from internal and external calibration services to calibration exciters and uncertainty analysis. Patrick also works externally to educate many in the calibration metrology community on topics of vibration, shock, and dynamic pressure.