



# Misfire & Engine Mechanical Diagnostics

*Scope-Driven Techniques for Fast Fault Isolation*

— Eric Ziegler

*Integrating scan data, scope patterns, current probes, vacuum transducers, and pressure transducers into the diagnostic process, technicians gain a clear view of ignition events, fuel contribution, mechanical sealing, and timing behavior without unnecessary teardown.*

- Structured Diagnostic Process - Ignition, Fuel and Mechanical Misfire Analysis
- Scan Data Strategies - Direct Testing and Narrow Fault Categories
- Scope Based Evaluation - Ignition Patterns and Fuel Delivery
- Mechanical Engine Analysis - Current, Vacuum and Pressure Transducers
- Electronic Verification of Camshaft Timing, Valve Sealing and Airflow Issues
- Non-Intrusive Testing Methods - Diagnose First...Then Teardown
- Pattern Interpretation for Combustion, Timing and Mechanical Sealing Concerns
- Vehicle Case Studies - Effective Test Selection and Result Interpretation

**SATURDAY • 1/24/26**  
**8:00 AM - 5:00 PM**

**CLASS ID: SEM1980**  
**\$385 USD / STUDENT**



Embassy Suites by  
Hilton Seattle Tacoma  
International Airport  
15920 West Valley Highway  
Seattle, WA