



## GC Technical Training

**Module Name:** GC Problem Solving - Intermediate

**Time Allocated:** 1.5 - 2 hours

**Intended Audience:** This talk assumes the attendee has at least the knowledge obtained from attending the GC Beginner Course

### Content Covers:

- Peak shape problems
- Retention time shifts
- Cause and effect of injector, oven and detector variable changes
- Loss of sensitivity
- Retention time changes
- Data system problems

### At the completion of this seminar, attendees should be able to:

- Recognize problem symptoms including peak fronting, tailing, square peaks etc and relate the symptom to the chromatographic cause
- Relationship of retention time shifts to column parameters, oven temperature variability and flow variability
- Optimize sensitivity by an understanding of the relationship of sensitivity to chromatographic and detector set up
- Understand the effect of capillary column inner diameter changes to flow and retention time shifts
- Understand time constant (peak width) to peak shape and quantitation