

# Agenda for 3 day advanced LC-MS/MS quantitation: method development and troubleshooting at SCIEX

SCIEX training courses follow the proven spaced learning approach to maximize learning retention. The training process includes a blend of instructor-led training, hands-on laboratory exercises and self-paced eLearning provided at a SCIEX location.

## Course goals and outcome

This course is intended for those who have completed a Success Program and have at least one year of operational experience with SCIEX LC-MS systems. It is focused on small molecule quantitation and is designed to provide experienced users with the knowledge necessary to successfully perform LC-MS method development and troubleshoot common MS and HPLC issues. It provides a variety of hands-on exercises, best practices and finishes with a Troubleshooting Challenge. It is delivered at a SCIEX location by an experienced SCIEX instructor.

Upon completion of the course, you should be comfortable with performing instrument tuning and calibration, optimizing a compound in ESI and APCI mode, understanding how to build a robust LC-MS method, troubleshooting common issues with method development and your LC-MS system, understanding quantitation parameters, and identifying issues with your processed results.

This course offers a workflow certificate upon completion of a final knowledge assessment.

## Course agenda

### DAY 1

- **Lecture:** Welcome and LCMS introduction
- **Lab exercise:** ESI/APCI compound and source optimization
- **Lab exercise:** Optimizing difficult compounds
- **Lab exercise:** Instrument tuning and PPG drift test

### DAY 2

- Knowledge review and discussion
- **Lecture:** HPLC method development
- **Lab exercise:** Method optimization (FIA, polarity switching, low resolution)
- **Lecture:** Advanced method parameters
- **Lab exercise:** Scheduled MRM method creation

### DAY 3

- Knowledge review and discussion
- **Lab exercise:** Matrix effects
- **Lecture:** LC-MS best practices, troubleshooting and maintenance
- **Lab exercise:** Charging test
- **Lab exercise:** Troubleshooting challenge
- Knowledge evaluation

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