

Syllabus for 2.5 day advanced LC-MS maintenance 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 or have significant operational experience with SCIEX LC-MS systems. It is designed to provide experienced users with the knowledge necessary to successfully troubleshoot and fix common MS and HPLC issues. You will also learn how to proactively maintain your LC-MS system, and how to exchange various consumable parts to keep your system running properly.

The course provides a variety of hands-on troubleshooting and maintenance exercises, best practices and finishes with a troubleshooting challenge for the learner. It is delivered at a SCIEX location by an experienced SCIEX instructor, and is supported by a series of easy-to-use Quick Reference Guides.

Upon completing the course, you should be comfortable with performing basic and advanced HPLC and MS maintenance, tuning and calibrating the mass spectrometer, troubleshooting common HPLC and MS issues, understanding quantitation parameters, and using outlier settings and metric plots to identify issues with the data results.

This can lead to an increase in the productivity and uptime of your LC-MS system, and reduce the need for engineer call outs or remote assistance. You will gain knowledge of which consumables to keep on-site to increase your system uptime.

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

Training program overview

Your training includes the following:

- 2.5 days of instructor-led and hands-on training provided at a SCIEX location by an experienced instructor
- Related self-paced eLearning courses, lectures, reference material and lab exercises
- Access to SCIEX Now Learning Hub database of >100 eLearning courses
- Access to SCIEX Now online support tools
- Workflow certificate upon successful completion of final exam and permanent access to all course materials for reference

- P.A.C.E.[®] Continuing Education Credits

Instructor-led training topics

- MS and HPLC troubleshooting
 - HPLC and MS best practices
 - HPLC and MS troubleshooting
- HPLC maintenance
 - Replace the autosampler needle
 - Replace low pressure rotors
 - Replace high pressure rotors
 - Replace check valves
 - Replace the plunger and plunger seal
 - Replace pump seals
 - Resetting counters
 - Understanding access controls
 - Autosampler calibration and position adjustment
 - Routine LC maintenance tasks
- MS maintenance
 - Front end cleaning under vacuum
 - Front end cleaning at atmospheric pressure
 - Ion guide cleaning
 - Replace or add pump oil
 - Replace air filter – where applicable
 - Replace source electrode (APCI or ESI probes) – where applicable
 - Replace source heater
 - Replace APCI corona discharge needle – where applicable
- Mass spectrometer tuning and calibration
 - Manual instrument tuning and calibration
 - Automated instrument tuning and calibration
- Quantitation troubleshooting
 - Important MQ4 and SignalFinder integration parameters
 - Outlier settings
 - Ion ratios
 - Metric plots
- Troubleshooting challenge
 - Practical exercise designed to test troubleshooting skills

P.A.C.E.[®] certification

SCIEX is approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.[®] Program. Learners interested in obtaining a P.A.C.E.[®] certificate and P.A.C.E.[®] accreditation for taking this course (equal to 15 P.A.C.E.[®] credits) must attend the entire training session and complete a brief evaluation survey.

The SCIEX clinical diagnostic portfolio is For In Vitro Diagnostic Use. Rx Only. Product(s) not available in all countries. For information on availability, please contact your local sales representative or refer to www.sciex.com/diagnostics. All other products are For Research Use Only. Not for use in Diagnostic Procedures.

Trademarks and/or registered trademarks mentioned herein, including associated logos, are the property of AB Sciex Pte. Ltd. or their respective owners in the United States and/or certain other countries (see www.sciex.com/trademarks).

© 2021 DH Tech. Dev. Pte. Ltd. GEN-CST-05-7339-C



Headquarters
500 Old Connecticut Path | Framingham, MA 01701 USA
Phone 508-383-7700
sciex.com

International Sales
For our office locations please call the division
headquarters or refer to our website at
sciex.com/offices