

Table 1. Examples of training needs specific to LC-MS/MS operations

Basic principles
<ul style="list-style-type: none"> - Liquid chromatography - Mass spectrometry - Sample preparation methods
Instrumentation
<ul style="list-style-type: none"> - MS optimization (tuning) - System suitability testing - LC flushing - LC fittings and tubing
Safety
<ul style="list-style-type: none"> - Voltage, pressure - Compressed gases - Handling of hazardous materials - PPE - Environmental controls
Analytical skills
<ul style="list-style-type: none"> - Operation of water purification system - Operation and maintenance of evaporators - Operation and maintenance of analytical balance - Volumetric and weighing techniques - Preparation of solutions (mobile phase, QC, calibrators, standards) - Glassware washing - Peak integration
Prevention of contamination
<ul style="list-style-type: none"> - Handling and storage of solutions - Pouring off reagents - Equipment maintenance and cleaning - Choosing compatible materials (plastics) - Handling instrument parts and consumables - Reagent verification
Troubleshooting
<ul style="list-style-type: none"> - Common problems with MS and LC components - Trend documentation/interpretation