



SU-520

FALCON 5000® Operations



DESCRIPTION

Mirion's SU-520 training course provides comprehensive instruction for proper operation of the FALCON 5000 portable, electrically-cooled, HPGe gamma spectroscopy system. This course begins with an overview of the FALCON 5000 hardware and a brief review of applicable radiation detection and health physics principles. This course emphasizes the simplified user interface provided for basic operations, before progressing to more advanced setup requirements and Genie™ software options including certificate files, nuclide library files, analysis sequence files, and calibration procedures. Typical FALCON 5000 measurement applications will be discussed, including in situ measurements and optional use of ISOCS™ efficiency calibration files. Approximately 60% of this 2-day course will be presented in lecture format, with the remaining 40% allocated for group discussion and practical exercises.

HOW YOU WILL BENEFIT

Attendees who complete this course will gain familiarity and proficiency with the basic operational features of the FALCON 5000 system, and with various options for analysis and reporting of FALCON 5000 measurement results. This knowledge will enable attendees to use the FALCON 5000 instrument and associated software with improved productivity, accuracy, and confidence. Supervisors and managers will benefit from the competence and confidence gained by course attendees, ensuring a more efficient and defensible analytical process for their gamma spectroscopy measurement program.

WHO SHOULD ATTEND

This course is intended for technical and supervisory personnel with little or no prior experience with Mirion's FALCON 5000 gamma detection system, but who will be responsible for using that system to perform gamma spectroscopy measurements and evaluate the reported measurement results.

COURSE CONTENT

- Review of fundamental radiation detection and radiation protection principles
- FALCON 5000 equipment overview and basic features (including wireless communication with the fully-functional tablet computer)
- Practical measurement applications for the FALCON 5000 system (including emergency response to radiation incidents, in situ measurements, and discrete sample counting)
- Traditional (source-based) and ISOCS mathematical efficiency calibrations
- Spectral data review and reporting of analysis results
- Quality Assurance considerations
- Use of Genie software with the FALCON 5000 unit
- Interpretation of Gamma Spectra

PREREQUISITES

Attendees should be familiar with basic gamma spectroscopy principles and measurement applications. Previous experience with Genie software operations would be beneficial. Prior completion of Mirion's Fundamentals of Gamma Spectroscopy (GP-201) training course and/or Applied Principles of Gamma Spectroscopy (GP-301) course is strongly recommended.