



GP-203

Fundamentals of Alpha/Beta Counting



DESCRIPTION

This 2-day course covers the complete range of alpha/beta counting principles from a review of radiation detection principles to evaluation of results and everything in between. This is a concentrated, concise, fast-paced course that includes a practical approach to all aspects of alpha/beta counting. This course is not a hardware or software operations course but does include an introduction to Mirion alpha/beta analysis software. The course is entirely in lecture format and includes mathematical exercises for many of the calculations germane to alpha/beta counting.

HOW YOU WILL BENEFIT

Attendees who complete this course will gain a thorough understanding of all of the fundamental processes which contribute to the collection and analysis of data from alpha/beta counting equipment. This knowledge will allow the attendee to understand the operation of alpha/beta counting systems and accurately interpret basic alpha/beta analysis results. Managers and supervisors benefit from the assurance that the technologist has a thorough working understanding of the fundamental principles that guide successful alpha/beta analyses.

WHO SHOULD ATTEND

New technologists or supervisory personnel who need to gain a thorough understanding of the process by which alpha/beta analyses are performed. This course is also suitable for experienced technologists desiring an alpha/beta counting fundamentals refresher.

COURSE CONTENT

- Review of Alpha and Beta Radiation Detection Principles
- Alpha/Beta Counter Signal Chain Components
- Alpha/Beta Counter Setup and Plateau Determination
- Alpha/Beta Counter and Sample Configuration Calibrations
- Alpha/Beta Analysis Activity Calculations
- Detection Limit and MDA Calculations
- Quality Assurance and Quality Control Considerations
- Evaluation of Alpha/Beta Counter Analysis Results
- Introduction to Mirion Alpha/Beta Counting Software

PREREQUISITES

Mirion GP-101 Principles of Radiation Detection training course or equivalent knowledge and experience. A complimentary screening through a placement exam is strongly recommended if course GP-101 has not been completed in the previous 12 months.