

## TRAINING COURSE

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# Integrating Chromatography for Pharmaceutical Analysis

[Total Learning time = 3.5 hours]

Analytical chemistry techniques based on separation science are critical in the analysis of pharmaceuticals and biopharmaceuticals. In chromatography and electrophoresis, integration is the process of determining the area of a peak and thus enabling quantitative analysis. The control of the integration process is extremely important, particularly in a GMP environment, because it determines the quality of the final results generated, and it can be manipulated to falsify data. Therefore, we need to be able to demonstrate that there is no risk to data integrity.

On this course, you will learn about the integration algorithms in common integration software packages and the functions of the parameters involved, so that you can ensure, and demonstrate, that the integration has been applied in the most appropriate manner.

## Learning Objectives

1. Understand the key concepts of how integration is applied,
2. Be able to process chromatography using available integration parameters, and
3. Be able to find the best solutions for issues associated with difficult chromatography, such as poorly resolved peaks.

Attendees are invited to bring along any real-life examples that they would like advice on during the training. These may be discussed during group exercises, or, where intellectual property is an issue, privately with the trainer.

## Delivery options for this course

This course is available either as an open enrolment option, where anyone can

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book onto the course, or as an in-house option where the course is run for employees in a specific company.

The open enrolment option is offered as a half day 'virtual' live online training event which is delivered over a 3 hours and 45 minutes period, from 12pm to 3:45pm, including a short break. The time zone is typically based on GMT (UTC) from November to March, and BST (UTC+1) from April to October.

The agenda is provided on page 3 and the full schedule of dates is available on the MTS website, [click here](#).

The in-house option may be delivered either in the live online format or in a classroom based format at your site. It is typically delivered from 9am to 12:45pm but the timings are based on customer preference.

### **This course is suitable for**

Anyone who integrates chromatography or reviews the data generated from integration processes.

For example:

- Development and Quality Control (QC) analytical chemists
- Reviewers in development and Quality Control (QC)

### **Included in the course fees**

- Comprehensive course hand-outs - The training book is provided as an electronic copy (pdf) for both live online and classroom based options.
- Certificate of Attendance
- Optional post training assessment (accessed in e-MTS, our learning management system) which leads to a Certificate of Training.
- Access to training materials via e-MTS
- Post training support – Attendees can contact the trainer with questions that may occur when they apply their learning to real life situations.

## Course Agenda & Outline

Typical timings (approximate)	Content
1200 to 1330	Introduction to integration Why is chromatography important? What is integration? The peak detection process and how to use peak width and peak threshold Integration parameters & events
1330 to 1345	<i>Refreshment break</i>
1345 to 1545	Processing chromatography step-by-step Processing methods Options for dealing with co-eluting peaks Identifying peaks Calculating results Final Q&A and wrap-up