

# Course Outline

## INCA Energy 2 or 3 day course (depending on optional topics & location)

This course is run for a maximum of 6 delegates to allow sufficient 'hands-on' practice live on the SEM.

### Objectives

**On this course you will learn how to:**

- Set up appropriate analysis SEM and ED operating conditions
- Use the tools in INCA to correctly identify peaks in the spectrum
- Process spectra into quantitative analysis using default standards
- Set up your own standards for quantitative analysis
- Acquire and process electron images and maps
- Store, recall, export and report data
- Monitor and maintain system performance

### Pre-requisites

Delegates should have had some basic experience of using the INCA software. This would be gained from the initial training when the system was installed.

### Course Outline

#### **Introduction to the system:**

- Hardware and detector
- Calibration and operation of X-ray detectors

#### **Spectrum acquisition:**

- Acquisition pre-sets and process time
- Peak identification and diagnostic tools
- Beam automation
- Comparing spectra
- General housekeeping of data
- Practical session

#### **Quantitative analysis:**

- Basic theory
- How the spectrum is processed
- Pre-quantitative analysis checks
- Quant calibration
- Standardless analysis using default standards
- Analysis using standards
- Practical session

#### **Imaging, smartmaps and linescans:**

- Optimising image and smartmap setups
- Cameo+ and phasemap
- Saving, exporting and printing of images and spectra
- Practical session

#### **The following optional topics may also be covered:**

- Automated data acquisition using Automate
- Montage for images and maps
- QuantMap

### Oxford Instruments plc

Halifax Road, High Wycombe, Bucks HP12 3SE, UK  
Tel: +44 (0) 1494 479251 Fax: +44 (0) 1494 524129  
www.oxford-instruments.com



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