

# Course Outline

## INCAWave 2 day course

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 the SEM for WD analysis
- Appreciate the requirements and settings for WD analysis
- Acquire segmented WD spectra
- Set up standards
- Do quantitative analysis using WD only
- Set up combined ED and WD analyses
- Use WD mapping
- Monitor performance and calibrate the system

### 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:**

- How the spectrometer works
- Gate valve operation
- Choosing SEM operating conditions

#### **Data acquisition:**

- Qualitative analysis
- Spectral scan
- The Line Table Editor
- Practical session

#### **Quantitative analysis:**

- Basic theory
- Monitoring beam current
- Acquiring and storing standards
- Analysing a sample using Wave data only
- Practical session

#### **Combined ED and WD analysis using Energy+:**

- Beam conditions for combined ED and WD
- Overlaying a WD spectrum on the ED spectrum
- Setting up combined ED and WD
- Quantitative analysis
- Mapping using WD
- Practical session

#### **Basic system monitoring:**

- Spectrometer Direct Control
- Calibrating the counters

#### **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](http://www.oxford-instruments.com)



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