

MYSOPE
MICROSCOPY TRAINING

Microscopy Concepts

Train for advanced research

Welcome

MyScope was developed by Microscopy Australia to provide an online learning environment for those who want to learn about microscopy. The platform provides insights into the fundamental science behind different microscopes, explores what can and cannot be measured by different systems and provides a realistic operating experience on high end microscopes.

We sincerely hope you find our website: www.myscope.training an enjoyable environment. In there you can explore the microscopy space and leave ready to undertake your own exciting experiments.

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Module Contents

What is Microscopy?

Why do microscopy?

- Magnification

- Magnification and measurement

- Resolution

- Depth of field

Electromagnetic Spectrum

- Introduction to the Electromagnetic Spectrum

- Wavelength, frequency and energy

- Electromagnetic spectrum and microscopy

Interactions with Matter

Lenses and Aberrations

- Lenses

Aberrations

 - Types of aberration

 - Overcoming aberrations

Calibrations

Nyquist Sampling

Detectors and Cameras

Digital Images

- Introducing digital images

- Images for Print in Journals and Posters

- Images for Presentation

- Colour enhancement

- Image Ethics

Credits