



**Sample Curriculum:
Optimizing Light Microscopy/Reflected Light**

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Optimizing Light Microscopy - Reflected Light Microscopy
a 2.5 day, hands on course on principles of reflected light microscopy.

This course covers:

- An introduction to the microscope (bits and pieces, structure and function)
- Basic principles of light, matter, and light-matter interactions
- Care and feeding of the microscope
 - alignment
 - general cleaning
 - troubleshooting
- Microscopy Principles
 - differences between resolution and detection
 - location of critical optical planes
- Using optical planes for modifications and troubleshooting
- Reading the microscope
 - Determining when to use which optics
 - Making better buying decisions to fit your specific application
- Contrast techniques
 - use of refractive index changes
 - filtration
 - field and aperture irises
 - darkfield/axial/and oblique illumination
- Image interpretation and troubleshooting

MME will supply all workbooks and course materials, including demonstration kits. Where possible, MME will supply 1 copy of "Optimizing Light Microscopy", a useful 188 page book which discusses the principles presented in these courses.

The client will supply:

- classroom and laboratory space;
- one microscope for each two students with the necessary components, preferably fitted with video systems and, if possible, printers;
- an overhead projector
- 35mm projector
- and relevant samples for observation.

Please note that, for maximum impact and effectiveness, we prefer to move the microscopes into a conference room, away from the general lab. If this move is a problem, please let us know as early as possible. Also, if there is a problem with the number of microscopes available, please let us know as soon as possible. We will try to coordinate with your local dealer for loan of equipment.