EMS MICROSCOPY ACADEMY
INTRODUCTION TO MICROSCOPY TECHNIQUES WORKSHOP

*Examples of the endless possibilities in the field of Microscopy*

![Microscope Image](image)

**Details**

Tuesday - Thursday  
May 19 - 21, 2020  
8:30 a.m. - 4:30 p.m.  
Hatfield, Pennsylvania, USA

**Targeted Participants**

Individuals who are new to the field of microscopy with little or no experience with specimen processing, microtomy, or instrumentation.

**Scope of Class**

This course will give participants an overview of the specimen preparation requirements, basic skill sets, and instrument theory/operation needed to perform as a technician in an electron microscopy laboratory.

**The EMS Microscopy Academy**

Located in Hatfield, Pennsylvania, the Academy provides electron microscopy classes, workshops and training sessions for all fields of microscopy, including materials science and biological science.
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Format

Lecture, demonstration, and hands-on practice, as well as round table tips and tricks discussions.

Main Curriculum

- Specimen chemical preparation, theory and practical lab work, for OLM, TEM, and SEM
- Sectioning for OLM (0.5 µm), TEM (100-60 nm)
- Critical Point Drying (CPD) and HMDS prep for SEM
- Instrument theory and hands on operation for OLM, TEM, and SEM

Equipment

<table>
<thead>
<tr>
<th>Hitachi S3500 SEM</th>
<th>Leica UC7 Microtome</th>
<th>Zeiss TEM</th>
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<tbody>
<tr>
<td>Q150T Coater</td>
<td>RMC Power Tome XL</td>
<td>EMS 9000 Microwave</td>
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<tr>
<td>LynxII Processor</td>
<td>K850 CPD</td>
<td>K750X Freeze Dryer</td>
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Faculty

Al Coritz has been doing Electron Microscopy for 39 years, beginning at the Yale School of Medicine and ending up on the commercial side with several key EM companies. His specialty is Cryo-techniques and Thin Film Technology; i.e. Freeze Fracture/ Rotary Shadowing, High Pressure Freezing, and more. He is currently with Electron Microscopy Sciences where he has been the Technical Director for over 20 years.

Michael Kostrna was the program director of the Electron Microscopy Technician program at Madison Area Technical College and has more than more than 35 years in EM technical education and research experience. He has been training EM students for 30 years and has developed curricula and lab exercises for TEM, SEM, OLM, lab safety, introductory and advanced biological EM, EM, maintenance, and x-Ray microanalysis. He has worked with companies such as SC Johnson Polymer, Dow Chemicals, Io Genetics, Virent Technologies, ABS Global, NanoOnocology, and Microscopy Innovations, and in the process gained insight to the various applications of EM.
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Schedule

Tuesday, May 19, 2020

8:30-9:00 Introduction of staff and participants
9:00-10:30 Microscopes, overview of common systems
10:30-10:45 Coffee Break
10:45-12:00 Demo systems on OLM, TEM, and SEM
12:00-12:30 Provided lunch
12:30-1:30 OLM wet prep and Kohler alignment
1:30-2:30 Sectioning demo
2:30-4:30 Thick section + stain for OLM
6.00 Hosted Dinner

Wednesday, May 20, 2020

8:30-9:00 Review of previous day’s activities
9:00-12:30 TEM chemical specimen prep (microwave) + Thin section
12:30-1:00 Provided lunch
1:00-2:00 TEM Lecture / demo
2:00-5:00 TEM hands on + sectioning (thick-thin)

Thursday, May 21, 2020

8:30-9:00 Review of previous day’s activities
9:00-10:30 SEM prep CPD - HMDS
10:30-10:45 Coffee Break
10:45-12:30 SEM theory lecture
12:30-1:00 Provided Lunch
1:00-2:00 SEM demo
2:00-4:30 SEM hands on
4:30-5:00 Round table discussion and work shop assessment

Schedule subject to change
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Registration Fee: $1,200.00 Includes

• Workshop syllabus
• All supplies
• Reagents and solutions
• Lunches
• Coffee
• Tea
• Dinner on the first evening of the workshop

Lodging

Participants are responsible for making their own hotel reservations.

The following hotel has been designated as the host hotel:

**Homewood Suites**
1200 Pennbrook Parkway
Lansdale, PA 19446
Phone: 215-362-6400

The special rate is $119.00 per night (plus tax) which includes a hot breakfast and a light dinner in the evening.

Please make your reservations and mention you are participating in the EMS Workshop.
GROUP CODE: EMS WORKSHOP

Everyone should plan to arrive the night before class begins.

**Enrollment Note**

Registration will be limited to a maximum of 15 participants.
EMS will provide samples to those who prefer not to bring their own.
Printable Registration Form

________________________________________________________________________________________________________
M / F
Name / Title
________________________________________________________________________________________________________
Institution
________________________________________________________________________________________________________
Department
________________________________________________________________________________________________________
Mailing address
________________________________________________________________________________________________________
City / Zip
________________________________________________________________________________________________________
Country
________________________________________________________________________________________________________
Telephone / Fax
________________________________________________________________________________________________________
Email:
________________________________________________________________________________________________________

Will you bring your own specimens? Yes__ / No__ (See Note on prior page)
What Samples are you bringing and most interested in?
________________________________________________________________________________________________________
________________________________________________________________________________________________________
All registrations must include payment.
Rate $1,200.00 per Person
Number of Participants ________
Total $________

Pay by check: make payable to EMS and reference “Intro Microscopy May20”.
Pay by credit card: Credit Card Type ________________________________________________________________
Credit Card Number ________________________________________________________________
Expiration Date ________________ 3 Digit Code ________________
________________________________________________________________________________________________________
Signature / Date

Return your registration to:
Stacie Kirsch
1560 Industry Road
Hatfield, PA 19440 USA
Phone: 215-412-8402
E-Mail: info@emsdiasum.com or Fax: 215-412-8452

TO REGISTER ONLINE, CLICK HERE.