



June 3 -15, 2012

LEHIGH MICROSCOPY SCHOOL



Lehigh University, Bethlehem, PA, USA

MAIN COURSES

SCANNING ELECTRON MICROSCOPY and X-RAY MICROANALYSIS June 4-8 *Flagship Course*

Provides a working knowledge of SEM and EDS X-ray microanalysis as well as an introduction to variable-pressure (environmental), low-voltage, and high-resolution SEM. Students are encouraged to bring their own specimens.

INTRODUCTION to SEM and EDS for the NEW OPERATOR June 3

A one-day course with lectures and labs related to the basic operation of the SEM. Enrollment limited to participants attending the main SEM course above.

**Win an
Apple iPad!**

iPads loaded with course notes and labs will be given away to FIVE Flagship Course registrants. Drawing will be on June 4th, the first day of the SEM course above. Registration guarantees eligibility!

SPECIALIZED COURSES

QUANTITATIVE X-RAY MICROANALYSIS: Problem Solving using EDS and WDS Techniques June 11-15

BRING A SPECIMEN – SOLVE A MICROANALYSIS PROBLEM! Learn how to perform EDS and WDS microanalysis on bulk specimens, layered materials, particles, and beam-sensitive materials. Master problem solving and quantitative microanalysis using $\Phi(\rho Z)$ corrections and software tools. Discover new technologies including silicon drift detectors. Become a better analyst with improved skills.

SCANNING TRANSMISSION ELECTRON MICROSCOPY: From Fundamentals to Advanced Applications June 11-15

This course provides an understanding of the concepts, instrumentation, and applications of STEM. The course explores basic and advanced levels of the following topics: STEM imaging, aberration correction, EDS, EELS, CBED, tomography, data manipulation, sample preparation, and a review of complementary techniques.

FOCUSED ION BEAM (FIB): Instrumentation and Applications June 11-14

Ion-solid interaction theory will be introduced and used in describing methods of specimen preparation for SEM, TEM, AFM, Auger, SIMS, and atom probe. Other topics include FIB/SEM analytical characterization and milling/deposition techniques for nanotechnology.

For more information, contact:
Sharon Coe | 610.758.5133
sharon.coe@lehigh.edu

www.lehigh.edu/microscopy

42 YEARS OF EXCELLENCE