

**A SEM Short Course from the AIM Lab, Maryland NanoCenter,
University of Maryland**

**AN INTRODUCTION TO SEM AND EDS FOR THE NEW SEM
OPERATOR**

The AIM Lab at the NanoCenter will offer a short course in Scanning Electron Microscopy (SEM) during the summer 2026 break. The course will utilize the laboratory's Hitachi SU-70 High Resolution Analytical SEM and Tescan XEIA FIB/SEM.

The short course is designed to provide an introduction to the SEM for participants with little or no prior experience. Topics will include the fundamental principles of SEM, instrument operation, imaging techniques, and the basics of energy-dispersive x-ray spectroscopy (EDS) for elemental analysis. In addition to the classroom lectures, the class will place strong emphasis on hands-on laboratory exercises. Participants will gain practical experience in SEM operation, sample examination, image acquisition and analytical application, allowing them to develop the skills necessary to effectively utilize SEM techniques in their own research.

Date: Four days, June 23, 24, 25 and 26, 2026

Lecture: 9:30 am to 12:10 pm.

Laboratory: Two hours/group/day (4 days, June 23, 24, 25 and 26, 2026)

Rooms: Lecture Room: TBA

Lab: SEM facility, AIM Lab, room 1237C and E, Jeong H. Kim Building

Limit: Maximum enrollment is 9 (3 lab groups, 3 persons per group)

Fee*: \$425 per person, \$395 per person for participants from the same research group with multiple enrollments, or for individuals concurrently enrolled in the SEM and TEM or FIB shot courses. \$225 per person for lecture-only or laboratory-only participation (subjected to instructor approval). Registration fees for non-UMD participants differ. Please contact the AIM Lab office for current rates and additional information.

To enroll in the course, please complete the attached application form and submit it to the AIM Lab office, room 1234, Kim Building, no later than 12:00 pm on Thursday June 18, 2026. Applicants accepted into the course will be notified by e-mail during the weekend of June 20-21, 2026.

*The discounted registration fees apply only to University of Maryland participants. Different registration fees apply to non-UMD participants. For more information, please contact the AIM Lab office by phone at (301)-405-0541 or by e-mail to wachiou@umd.edu.

Attachment: SEM Short Course Application Form

Application Form for UMD Summer (June 2026) SEM Short Course

Name: _____
Last, First Middle Initial

Department: _____

Telephone No.: _____

E-Mail Address: _____

Advisor and/or PI: _____

Payment: Check or UMD Worktag account No.: _____

Course to be attended: SEM Short Course _____

Research Topic: _____

Is (are) there any other attendee(s) from your research group?

If yes, please provide his/her Name: _____

Will you also attend TEM and/or FIB short course? _____

Signed: _____ (Student) Date: _____

Signed: _____ (Advisor/PI) Date: _____