BIEN 535. ELECTRON MICROSCOPY AND 3D IMAGING FOR BIOLOGICAL MATERIALS.

Credits: 3

Offered by: Bioengineering (Faculty of Engineering)

This course is not offered this catalogue year.

Description

Introduction to electron microscopy and 3D imaging. Dual-beam microscopy (FIB-SEM, or focused ion beam – scanning electron microscope); conventional and cryogenic preparation methods for biological materials. Complementary methods such as X-ray diffraction, X-ray tomography, atom probe tomography. 3D image processing and analysis, and the fundamentals of deep learning in imaging.

- 3-3-3
- Prerequisite: Permission of the instructor.
- Restrictions: Open to undergraduate (U3 or higher) and graduate students. Priority is given to bioengineering U3 undergraduate students.