

ELT 224 : Materials Modification in Nanofabrication

This course will cover in detail the processing techniques and specialty hardware used in modifying properties in nanofabrication. Material modification steps to be covered will include etching, functionalization, alloying, stress control and doping. Avoiding unintentional materials modification will also be covered including such topics as use of diffusion barriers, encapsulation, electromigration control, corrosion control, wettability, stress control, and adhesion. Hands-on materials modification and subsequent characterization will be undertaken.

Credits 3

Notes

Course offered on the Penn State University Campus in partnership with the Penn State University Nanotechnology Program.