

ESM 350 Advanced Engineering Laboratory (Required)

Course website: <http://www.matscieng.sunysb.edu/esm350/>

Course Catalog description:

Students work in teams to perform advanced laboratory projects that emphasize the structure-property relationship. Emphasis on statistical analysis, multivariate fitting of data, and technical manuscript preparation.

3 credits

Pre- or Corequisite(s): ESG 312 Engineering Laboratory, ESG 333 Materials Science II: Electronic Properties

Text(s) or other required material: None

Course learning outcomes:

Topics Covered:

Hall Effect

Range and Stopping Power of Different Materials of Alpha-particle radiation: (discontinued)

High Tc Superconductor:

Interfacial and Surface Energies via Contact Angle Measurements:

The Effect of Substrate Mechanical Properties on Cell Growth

The Mossbauer Effect: (discontinued)

Fracture Toughness of Polymer Interfaces:

Magneto Optic Effect:

The process of Spinodal Decomposition and Coarsening in Polymer Blends

Class/ Laboratory Schedule:

ESM	350	Advanced Engineering Lab	LEC	1	M	11:45 AM	1:05 PM
			REC	R01	RECF	2:20 PM	3:15 PM
			LAB	L01	M	1:30 PM	4:20 PM
			REC	R02	RECF	1:15 PM	2:10 PM
			LAB	L02	M	4:30 PM	7:20 PM

Contribution of Course to meet requirement of Criterion 5:

Relationship of course to program outcomes:

Person(s) who prepared this description and date of preparation: