

**Course Number: 28598**

**Course Name: Introduction to Micro/Nano-Fabrication**

Course Type:
Prerequisite:
Level: Graduate
Group: Applied Mechanics

Type & Max Unit: 3
Corequisite:
First Presentation:
Last Edition:

**Objectives:**

**Topics:**

- Introduction
  - Miniaturization and Scaling Laws
  - Applications of Micro-system Devices
  - Materials in Micro-Fabrication, Wafer Preparation
- Lithography
  - Photolithography
  - Next-Generation Lithography
- Pattern Transfer with Subtractive Techniques
  - Dry Etching
  - Wet Chemical Etching
  - Wet Bulk Micromachining
- Pattern Transfer with Additive Techniques
  - Physical/Chemical Vapor Deposition
  - Surface Micro Machining
  - Chemical, Photochemical, and Electrochemical Forming Techniques
  - Micro-molding Techniques—LIGA
- Related Techniques
  - Micro/Nano Inspection and Visualization
  - Packaging

**References:**