

EE505 MEMS Sensors and Actuators

Text: Foundations of MEMS
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Office Hours: M 910pm W 2pm, Θ 8AM, by appointment

Prerequisites:

EE409, EE414, or solid state physics

Course Outline

Microfabrication

- Lithography

- Etching

- Deposition

- Oxidation/Diffusion

Mechanical Transducers

- Basic Mechanics

- Capacitive Actuators

- Magnetic Actuators

- Thermal Actuators

Physical Sensors

- Strain

- Temperature

- Piezo

- Bimorph

- Inertial

Optical MEMS

RF MEMS

Bio-Chemical MEMS

Grading: one midterm, Literature Review Paper, Final exam, Final Lab Report