

Lecture 8: Process Modules IV

- **Announcements:**
- HW#2 online and due next Friday
- All lecture videos (so far) now online
- Module 5 on "Surface Micromachining" now online
- -----
- **Today:**
- Reading: Senturia, Chpt. 3; Jaeger, Chpt. 2, 4, 5
 - ↳ Etching
 - Wet etching
 - Dry etching
 - ↳ Semiconductor Doping
 - Ion implantation
 - Diffusion
- Reading: Senturia Chpt. 3, Jaeger Chpt. 11,
Handout: "Surface Micromachining for
Microelectromechanical Systems"
 - ↳ Lecture Topics:
 - ↳ Polysilicon surface micromachining
 - ↳ Stiction
 - ↳ Residual stress
 - ↳ Topography issues
 - ↳ Nickel metal surface micromachining
 - ↳ 3D "pop-up" MEMS
 - ↳ Foundry MEMS: the "MUMPS" process
 - ↳ The Sandia SUMMIT process
- -----
- **Last Time:**
- Going through Module 4 ... continue this