

MECH6319 - Dynamics and Control of MEMS

[MECH 6319](#) Dynamics and Control of MEMS (3 semester credit hours) This course provides a comprehensive overview of Microelectromechanical Systems (MEMS) devices and their control systems. It covers topics such as MEMS fabrication processes, Sensing and actuation techniques in MEMS, Modeling and system identification of MEMS dynamics, control, signal processing, and interface electronics design for MEMS, and a number of case studies including MEMS accelerometers, gyroscopes, force sensors, pressure sensors and nanopositioners. Prerequisites: ([MECH 4310](#) or equivalent) and [MECH 6300](#) or equivalents. (3-0) R