

SSE - Semiconductor Science and Engineering

Semiconductor Science and Engineering: SSE

Lower-Division Courses

Upper-Division Courses

Graduate Courses

SSE 380. Introduction to Semiconductors.

Restricted to semiconductor science and engineering students. Survey fundamental and important areas in semiconductor science and engineering including semiconductor device design, semiconductor manufacturing techniques, metrology and process control. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

SSE 380C. Topics in Semiconductor Science and Engineering.

Three lecture hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Graduate standing.

SSE 381. Semiconductor Processes.

Restricted to semiconductor science and engineering students. Explore a theoretical and practical introduction to contemporary fabrication techniques and methods. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

SSE 382. Semiconductor Devices.

Restricted to semiconductor science and engineering students. Examine the design and physics underlying modern semiconductor devices. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

SSE 390. Semiconductor Manufacturing Laboratory.

Restricted to semiconductor science and engineering students. Explore how to operate fabrication tools in the cleanroom. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

SSE 391. Semiconductor Metrology and Characterization Laboratory.

Restricted to semiconductor science and engineering students. Explore various different metrology techniques for analyzing materials and structures. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Graduate standing.

SSE 395. Research.

Restricted to semiconductor science and engineering students. Prepare for an independent research project in semiconductor science and engineering through developing literature review and technical writing skills. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

SSE 398R. Master's Report.

Restricted to semiconductor science and engineering students. Prepare a report to fulfill the requirement for the master's degree. Three lecture hours a week for one semester. Prerequisite: Graduate standing.

Professional Courses