Credits
4.0 (3 hrs lecture, 1 hr section)

Lead Instructor
Edward Lazowska

Textbook

- *Operating Systems: Principles and Practice*, Thomas E. Anderson and Michael Dahlin

Course Description
Principles of operating systems. Process management, memory management, auxiliary storage management, resource allocation. No credit to students who have completed CSE 410 or E E 474.

Prerequisites
CSE 351 or CSE 378; CSE 326 or CSE 332; CSE 333..

CE Major Status
Selected Elective

Course Objectives
Give students a working knowledge of operating systems principles, design issues, algorithms and data structures. Build programming experience through a sequence of targeted OS projects.

ABET Outcomes
(a) an ability to apply knowledge of mathematics, science, and engineering
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
(e) an ability to identify, formulate, and solve engineering problems
(i) a recognition of the need for, and an ability to engage in life-long learning
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Course Topics

- operating system structure, processes, threads, synchronization, scheduling, deadlock, virtual

- memory, secondary storage management, distributed systems, file systems, security