

CIS225 - Operating System (3 Units)

Overview of O/S: Role & Purpose, Functionality Mechanisms to support Client-server models, handheld devices, Design Issues influences of Security, networking, multimedia, Windows. O/S Principle: Structuring methods Abstraction, processes and resources, Concepts of APIS Device organization interrupts. Concurrency: States & State diagrams Structures, Dispatching and Context Switching; interrupts; Concurrent execution; Mutual exclusion problem and some solutions Deadlock; Models and mechanisms (Semaphores, monitors etc.). Producer-Consumer Problems and Synchronization. Multiprocessor issues. Scheduling & Dispatching Memory Management: Overlays, Swapping and Partitions, Paging & Segmentations Placement & replacement policies, working sets and Trashing, Caching.