

Operating Systems and Concurrency

(CS22210)

What is an Operating System?

Course Content

- Introduction to Operating Systems
 - 1 lecture (haf)
- Program and Human Interfaces
 - 6 lectures (haf)
- Processes and Concurrency
 - 6 lectures (haf/fwl)
- Resource Management
 - 6 lectures (fwl)
- Input-Output
 - 2 lectures (fwl)
- Security
 - 1 lecture (fwl)

A Brief History of Operating Systems

- Batch Operating Systems
- Multiprogramming Operating Systems
- Time-Sharing Operating Systems
- PC Operating Systems
- Other types of system:
 - Parallel
 - Distributed
 - Real-Time

The Components of an Operating System

- Process Management
- Main-Memory Management
- File Management
- Input/Output System Management
- Secondary-Storage Management
- Networking
- Protection System
- Command-Interpreter System

Layered Operating System Structure

An Operating System Layer:

