Lesson Plan
Course Title: Operating System
Course code: CSC1036/INF1036
Instructor: Dr. Hasin A Ahmed

Class No.	***Topics to be covered***
1-7	Computer Subsystems, Programming Languages and Software, System Software, Processors, Primary Memory, Secondary Memory, Input/Output Devices
8-14	Instruction Set, Addressing Modes, Instruction Types, Input Output Organization, Address protection, Segmentation, Virtual Memory, Paging, Page Replacement Algorithms, Cache memory
15-18	Hierarchy of memory types, Associative memory, Mutual exclusion, shared data, Critical sections, Busy form of waiting, Lock and unlock primitives
21-25	Synchronization block and wakeup, Process introduction, process scheduling queue, schedulers, Virtual processors, Interrupt mechanism
26-30	Scheduling algorithm: FCFS, Shortest-Job-Next (SJN) Scheduling, Priority Scheduling, Shortest Remaining Time, Round Robin(RR) Scheduling
31-35	Multiple-Level Queues Scheduling, Implementation of concurrency primitive, Deadlock characterization, Resource Allocation Graph, Prevention, detection and avoidance of deadlock, Banker's algorithm
36-40	Detection algorithm, Queue management, I/O supervisors, Memory Management, File System, Disk and drum scheduling
41-45	Case Study: semaphore, Case Study: messages, shared memory, Secondary storage management, Security, Distributed operating system
46-48	Thread, Thrashing, Spooling