Day Wise Plan - OS

Topics to be covered:

1. Introduction
2. Process Management
3. Process Synchronisation
4. Deadlock
5. Processes and Threads
6. Memory Management
7. Disk Management or File System
8. System Calls

Day 1 Introduction

1. [Introduction of Operating System](https://www.geeksforgeeks.org/operating-system-introduction-operating-system-set-1/)
2. [Types of Operating Systems](https://www.geeksforgeeks.org/operating-system-types-operating-systems-awaiting-author/)

Day 2 Introduction

1. [Difference between multitasking, multithreading and multiprocessing](https://www.geeksforgeeks.org/operating-system-difference-multitasking-multithreading-multiprocessing/)
2. [Types of computer memory (RAM and ROM)](https://www.geeksforgeeks.org/types-computer-memory-ram-rom/)

Day 3 Process Management

1. [Process | (Introduction and different states)](https://www.geeksforgeeks.org/gate-notes-operating-system-process-management-introduction/)
2. [States of a process](https://www.geeksforgeeks.org/operating-systems-states-process/)

Day 4 Process Management

1. [Process Table and Process Control Block (PCB)](https://www.geeksforgeeks.org/operating-system-process-table-process-control-block-pcb/)
2. [Process Scheduler](https://www.geeksforgeeks.org/gate-notes-operating-system-scheduler/)

Day 5 Process Management

1. [CPU Scheduling](https://www.geeksforgeeks.org/gate-notes-operating-system-process-scheduling/)
2. [Measure the time spent in context switch?](https://www.geeksforgeeks.org/measure-time-spent-context-switch/)

Day 6 Process Management

1. [Difference between dispatcher and scheduler](https://www.geeksforgeeks.org/operating-system-difference-dispatcher-scheduler/)
2. [FCFS Scheduling | Set 1](https://www.geeksforgeeks.org/program-fcfs-scheduling-set-1/)

Day 7 Process Management

1. [FCFS Scheduling | Set 2](https://www.geeksforgeeks.org/program-fcfs-scheduling-set-2-processes-different-arrival-time/)
2. [Convoy Effect in Operating Systems](https://www.geeksforgeeks.org/convoy-effect-operating-systems/)

Day 8 Process Management

1. [Shortest Job First (or SJF) scheduling | Set 1 (Non- preemptive)](https://www.geeksforgeeks.org/program-shortest-job-first-sjf-scheduling-set-1-non-preemptive/)
2. [Round Robin scheduling](https://www.geeksforgeeks.org/program-round-robin-scheduling-set-1/)

Day 9 Process Management

1. [Priority Scheduling](https://www.geeksforgeeks.org/program-priority-scheduling-set-1/)
2. [Highest Response Ratio Next (HRRN) Scheduling](https://www.geeksforgeeks.org/operating-system-highest-response-ratio-next-hrrn-scheduling/)

Day 10 Process Management

1. [Multilevel Queue Scheduling](https://www.geeksforgeeks.org/operating-system-multilevel-queue-scheduling/)

Day 11 Process Synchronization

1. [Process Synchronization | Introduction](https://www.geeksforgeeks.org/process-synchronization-set-1/)
2. [Critical Section](https://www.geeksforgeeks.org/g-fact-70/)

Day 12 Process Synchronization

1. [Inter Process Communication](https://www.geeksforgeeks.org/inter-process-communication/)
2. [IPC through shared memory](https://www.geeksforgeeks.org/ipc-shared-memory/)

Day 13 Process Synchronization

1. [IPC using Message Queues](https://www.geeksforgeeks.org/ipc-using-message-queues/)
2. [Semaphores in operating system](https://www.geeksforgeeks.org/semaphores-operating-system/)

Day 14 Process Synchronization

1. [Mutex vs. Semaphore](https://www.geeksforgeeks.org/mutex-vs-semaphore/)
2. [Peterson’s Algorithm for Mutual Exclusion | Set 1 (Basic C implementation)](https://www.geeksforgeeks.org/petersons-algorithm-for-mutual-exclusion-set-1/)

Day 15 Process Synchronization

1. [Peterson’s Algorithm for Mutual Exclusion | Set 2 (CPU Cycles and Memory Fence)](https://www.geeksforgeeks.org/petersons-algorithm-for-mutual-exclusion-set-2-cpu-cycles-and-memory-fence/)
2. [Peterson’s Algorithm (Using processes and shared memory)](https://www.geeksforgeeks.org/petersons-algorithm-using-processes-shared-memory/)

Day 16 Process Synchronization

1. [Dining Philosopher Problem Using Semaphores](https://www.geeksforgeeks.org/operating-system-dining-philosopher-problem-using-semaphores/)
2. [Readers-Writers Problem | Set 1 (Introduction and Readers Preference Solution)](https://www.geeksforgeeks.org/readers-writers-problem-set-1-introduction-and-readers-preference-solution/)

Day 17 Process Synchronization

1. [Lock variable synchronization mechanism](https://www.geeksforgeeks.org/lock-variable-synchronization-mechanism/)
2. [Mutex lock for Linux Thread Synchronization](about:blank)

Day 18 Process Synchronization

1. [Priority Inversion : What the heck !](https://www.geeksforgeeks.org/priority-inversion-what-the-heck/)
2. [What’s difference between Priority Inversion and Priority Inheritance ?](https://www.geeksforgeeks.org/whats-difference-priority-inversion-priority-inheritance/)

Day 19 Deadlock

1. [Deadlock Introduction](https://www.geeksforgeeks.org/operating-system-process-management-deadlock-introduction/)
2. [Deadlock Detection And Recovery](https://www.geeksforgeeks.org/deadlock-detection-recovery/)

Day 20 Deadlock

1. [Deadlock Prevention And Avoidance](https://www.geeksforgeeks.org/deadlock-prevention/)
2. [Banker’s Algorithm](https://www.geeksforgeeks.org/operating-system-bankers-algorithm/)

Day 21 Deadlock

1. [Resource Allocation Graph (RAG)](https://www.geeksforgeeks.org/operating-system-resource-allocation-graph-rag/)

Day 22 Processes and Threads

1. [Operating System | Thread](https://www.geeksforgeeks.org/operarting-system-thread/)
2. [Operating System | User Level thread Vs Kernel Level thread](https://www.geeksforgeeks.org/operating-system-user-level-thread-vs-kernel-level-thread/)

Day 23 Processes and Threads

1. [Process-based and Thread-based Multitasking](https://www.geeksforgeeks.org/operating-system-process-based-thread-based-multitasking/)
2. [Multi threading models](https://www.geeksforgeeks.org/multi-threading-model/)

Day 24 Processes and Threads

1. [Zombie Processes and their Prevention](https://www.geeksforgeeks.org/zombie-processes-prevention/)
2. [Maximum number of Zombie process a system can handle](https://www.geeksforgeeks.org/zombie-processes-prevention/)

Day 25 Memory Management

1. [Different Types of RAM (Random Access Memory)](https://www.geeksforgeeks.org/different-types-ram-random-access-memory/)
2. [Buddy System: Memory allocation technique](https://www.geeksforgeeks.org/operating-system-buddy-system-memory-allocation-technique/)

Day 26 Memory Management

1. [Memory Management | Partition Allocation Method](https://www.geeksforgeeks.org/operating-system-memory-management-partition-allocation-method/)
2. [Operating System | Paging](https://www.geeksforgeeks.org/operating-system-paging/)

Day 27 Memory Management

1. [Memory management – mapping virtual address to physical addresses](https://www.geeksforgeeks.org/memory-management-mapping-virtual-address-physical-addresses/)
2. [Page Table Entries](https://www.geeksforgeeks.org/operating-system-page-table-entries/)

Day 28 Memory Management

1. [Virtual Memory](https://www.geeksforgeeks.org/virtual-memory-operating-systems/)
2. [Inverted Page Tabl](https://www.geeksforgeeks.org/operating-system-inverted-page-table/)e

Day 29 Memory Management

1. [Page Fault Handling](https://www.geeksforgeeks.org/operating-system-page-fault-handling/)
2. [Segmentation](https://www.geeksforgeeks.org/operating-systems-segmentation/)

Day 30 Memory Management

1. [Page Replacement Algorithms](https://www.geeksforgeeks.org/operating-system-page-replacement-algorithm/)

Day 31 Disk Management

1. [File Systems](https://www.geeksforgeeks.org/file-system-operating-systems/)
2. [File Allocation Methods](https://www.geeksforgeeks.org/file-allocation-methods/)

Day 32 Disk Management

1. [Secondary memory – Hard disk drive](https://www.geeksforgeeks.org/operating-system-secondary-memory-hard-disk-drive/)
2. [Disk Scheduling Algorithms](https://www.geeksforgeeks.org/disk-scheduling-algorithms/)

Day 33 Disk Management

1. [What exactly Spooling is all about?](https://www.geeksforgeeks.org/what-exactly-spooling-is-all-about/)

Day 34 System Callsstart

1. [Introduction of System Call](https://www.geeksforgeeks.org/operating-system-introduction-system-call/)
2. https://www.geeksforgeeks.org/fork-system-call/
3. https://www.geeksforgeeks.org/difference-fork-exec/