**COURSE CODE:** **IGIT– 501-CR11**
**COURSE TITLE:** **OPERATING SYSTEM**
**CREDITS** **4+2=06**

**Unit I**

Introduction, Evolution of Operating System, Operating System Structure,Types of Operating System: Batch Processing, Multiprogramming, Timesharing ,Distributed System, Real Time System. Process: Concepts, Process control blocks, concurrency, mutual exclusion, semaphores, Inter-process Communication, Process Synchronization.

**Unit II**

Processor management techniques; Threads, Process Scheduling, Scheduling Criteria, types of scheduling, scheduling algorithms, Deadlocks, Deadlocks Prevention, Deadlocks Avoidance, Deadlocks Detection.

**Unit III**

Memory Management: Real storage, Contiguous vs. Non-Contiguous storage allocation, Static and Dynamic Partitioned memory allocation; Virtual memory,management of virtual memory, Paging, Segmentations, Segmentation with Paging.

**Unit IV**

I/O Management: Disk Organization, disk space management, disk scheduling, Files types and operations, File access and security, File storage Management, File Organization

**Recommended Books**


1) Operating system concepts, Abraham Silberchatz, Galvin,Wiley Publications
2) Modern operating systems,Andrew Tannenbaum,Pearson Education
3) Operating system,Internals and Design principles ,W Stalling, Pearson Education