Please consider the associated Links and References (Canvas, On-Line) provided in the class schedule.

Main topics:

- **Ch 9: Main Memory**
  - Process Creation and Memory Space
  - Contiguous Allocation
    - Single Allocation
    - Fixed (static) Partitioning
      - Internal Fragmentation
    - Dynamic Partitioning
      - External Fragmentation (holes)
      - Compaction
    - Buddy Algorithm
  - Placement Algorithm
    - First-fit, Next-fit, Best-fit, and Worst-fit
  - Address Binding
    - Logical/Relative Address to Physical Address
  - Page Memory Management
    - Page, Frame, Page Table
    - Address Translation Scheme
    - Page Table Implementation
      - TLB
      - Hierarchical Paging
      - Hashed Page Tables
      - Inverted Page Tables

  - Segmented Memory Management
    - Address Translation Scheme
  - Segmented Page Memory Management
- **Ch 10: Virtual Memory**
  - What is it? Virtual Memory Space
  - Demand Paging
  - Valid-Invalid bit (vs. modify/dirt bit, reference/used bit)
  - Page Fault
    - What is it?
    - Handling Page Fault
  - Performance od Demand paging
  - Page Replacement
    - Modify/dirty bit
  - Demand Paging Algorithms
    - Page-replacement Algorithm
      - Optimal

- FIFO
  - Belady's Anomaly and Stack Algorithms
- LRU (Least Recently Used)