

# Minnesota State University Moorhead

## CSIS 430: Operating Systems

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

This course requires both of these prerequisites

CSIS 352 - Advanced Concepts in Programming

CSIS 320 - Architecture

Corequisites: None

MnTC Goals: None

A study of operating systems as a resource manager with emphasis on process management and synchronization, CPU scheduling, deadlocks, memory management, virtual memory, file management, I/O systems, and distributed systems. Project required. Prior or concurrent enrollment in CSIS 352 is required.

**B. COURSE EFFECTIVE DATES:** 04/15/2001 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Process management and synchronization.
2. CPU scheduling.
3. Deadlocks.
4. Memory management.
5. Virtual memory.
6. File management.
7. I/O systems .
8. Distributed systems.

### D. LEARNING OUTCOMES (General)

1. Know what an operating system is.
2. Be aware of the resources that operating systems manage and the techniques utilized in doing so.
3. Be aware of operating system design principles.
4. Be theoretically capable of writing an operating system from scratch.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted