University of Detroit Mercy
College of Engineering and Science
Department of Mathematics, Computer Science and Software Engineering

CSSE-4490 01 Operating Systems
Winter 2017

DESCRIPTION OF COURSE: Review of batch processing systems including components, operating characteristics, user service and limitations, implementation techniques for parallel processing of input/output and interrupt handling, overall structure of multiprogramming systems techniques, memory management, file system design and management, system accounting and other user-related services, traffic control, inter-process communication, design of system modules and interfaces, system updating, documentation and operation. Computer projects.

PREREQUISITES: CSSE 2430 Data Structures

PREREQUISITES BY TOPIC: Ability to program using C++ programming language.

REQUIRED TEXT: Operating System Concepts, 9th Edition, Abraham Silberschatz, Peter B. Galvin, and Greg Gagne. Wiley (2013), **ISBN** 978-1-118-06333-0

INSTRUCTOR: Dr. Shadi Bani Taan – (313) 993-1060
                    Email: banitash@udmercy.edu.

OFFICE HOURS: Monday & Wednesday 01:00pm – 2:00pm; or email to schedule an appointment.

LECTURE: MW 5:15 pm-6:30 pm, Room E222.

COURSE OUTCOMES: Upon completion of the course, students will be able to*:

1. Describe OS structure and OS support for processes and threads. (a, b)
2. Describe the services an OS provides to users, processes, and other systems. (a, c, i)
3. Learn several algorithms for handling deadlock. (a, b)
4. Learn several algorithms for CPU scheduling. (a, b, j)
5. Describe various memory-management techniques. (a, h)

 *_Letters refer to Computer Science Program Outcomes_

COMPUTER USAGE: Students will use POSIX API.

TOPICS:

        Chapter 1: Introduction
        Chapter 2: Operating System Structures
        Chapter 3: Processes
        Chapter 4: Threads
        Chapter 6: CPU Scheduling
        Chapter 7: Deadlocks
        Chapter 8: Main Memory

GRADING:

Tests (2)	30%
Programming Assignments	25%
Term Paper	10%
Quizzes and Homework	15%
Final Exam	20%

EXAM SCHEDULE: Friday April 28, 5:00 PM-6:50 PM.
 (TENTITATIVE)

GRADING SCALE:

93-100% A	87-89% B+	77-79% C+	69-67% D+
90-92% A-	83-86% B	73-76% C	60-66% D
	80-82% B-	70-72% C-	0-59% F

IMPORTANT DATES:

Jan 15	Last Day to Add a Class
Jan15	Last Day to Drop a Class without a "W"
Jan 16	MLK Holiday (UNIV CLOSED)
Feb 28	Mid-term Grades are due
Mar 6-11	Spring Break
Mar 13	Advising for Fall begins
Mar 20	Registration for Fall begins
Mar 26	Honors Convocation
Mar 30	Last Day to Withdraw from Class
Apr 14-16	Easter Recess (UNIV CLOSED)
Apr 25-29	Final Exam Week
Apr 29	Official End of Term II/Winter
May 1	Final grades due
May 13	Baccalaureate/Commencement

LATE ASSIGNMENTS:

Due dates will be provided for each assignment when it is posted. Late assignments will be accepted with a penalty of 10% per day late. No extensions will be given due to illness, school activities, etc. since there is plenty of time to complete assignments before the due date. Extensions will be considered in the case of serious family emergencies, extended illness, or other lengthy absence only, and must be requested prior to the due date.

ACADEMIC INTEGRITY:

Students are expected to conform to a high standard of honesty and integrity in this course. Copying the work of someone else and other forms of cheating are strictly prohibited. Permitting or tolerating such behavior is also prohibited. The minimum penalty for any offense is a 0 on that assignment. The culprits may be subject to additional sanctions, up to and including expulsion from school for serious offenses, as prescribed by the University Catalog and the Engineering and Science Student Handbook.

Disability Support Services and Accommodations:

If you need an accommodation because of a disability, have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please contact:

Emilie Wetherington, Director
Disability Support Services.
McNichols Campus Library, Room 328
Email: gallegem@udmercy.edu
Phone: 313-993-1158

It is very important for students to be proactive with regard to requesting their disability accommodations every semester. Students are encouraged to have open communication with their professors. However, it is never a requirement for students to disclose their disabilities to anyone except the Director of Disability Support Services, and only if they wish to request accommodations. You must be registered with Disability Support Services and your faculty must receive official notification from the DSS office before they can make arrangements for your accommodations.