

CS530 Operating Systems

COURSE SYLLABUS: FALL 2019

INSTRUCTOR INFORMATION

Instructor: Dr. Oner Ulvi Celepcikay

Time: n/a (Online Course)

Office Location: n/a (Online Course)

Office Hours: n/a (Online Course - contact me by email or cell phone)

Office Phone: (713) 966-9354 (cell phone)

University Email Address: Oner.Celepcikay@tamuc.edu

Preferred Form of Communication: Email or Cell Phone for emergencies

Communication Response Time: 24 hours.

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook Required

Understanding Operating Systems. Seventh Edition by Ann McIver McHoes, Ida M. Flynn. @2014 Cengage Learning

Recommended Book (OS): Operating System Concepts, 7th Edition by A. Silberschatz and P. Galvin, John Wiley & Sons, Inc., 2006, 0-471-69466-5 ISBN

Course Description

This course focuses on operating system structure and design techniques; process management, CPU and disk scheduling; process synchronization, concurrency, and memory and file management, device management, virtual memory; mass storage and I/O systems and OS security.

Student Learning Outcomes

Students will be able to:

- Explain the objectives and functions of modern operating systems
- Describe how computing resources are used by application software and managed by system software.
- Describe the need for concurrency within the framework of an operating system
- Demonstrate the potential run-time problems arising from the concurrent operation of many separate tasks
- Analyze processes, threads, and concurrency issues and process synchronization
- Explain simple memory management, virtual memory
- Describe the reason for and use of cache memory
- Explain file management, mass storage, and I/O systems
- Analyze basic OS security issues

COURSE REQUIREMENTS

There will be regularly assigned homework problems. To plan a minimum of three hours of outside preparation for each hour of class is a safe time allocation for successfully completing the course. Due dates for all assigned materials will be announced in class in advance. It is the student's responsibility to have all assignments ready on time. Any student who has to be absent on an assignment due date must arrange to have the assignment submitted early. Late assignment may not be accepted. Additional requirements of the course include a number of quizzes, homework assignments and tests.

GRADING

Course Grade: Course grades will be determined as follows:

Activity	Weight
Homework & Projects	25%
Quizzes	5%
Exams	30%
Research Paper Assignment	15%
Final Exam	25%

Your final course grade will be determined by following standard college formula:

A = 90%-100%

B = 80%-89%

C = 70% - 79%

D = 60% - 69%

F = 59% or Below

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

The syllabus/schedule are subject to change.

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

Students should email Dr. Celepcikay using oner.celepcikay@tamuc.edu email.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Homework Assignments: Assignments are to be completed and turned in *by the due date*. For each late day, 10 percent of the total possible points will be deducted. No work will be accepted more than 5 days late.

Exams: Make-up exams will *only* be given in cases of documented emergencies. It is your responsibility to contact your instructor with documentation of your emergency.

Quizzes: No Make-ups for quizzes. All missed grades will be recorded as zeros.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook. http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as

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Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>.

http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

<u>Undergraduate Academic Dishonesty 13.99.99.R0.03</u>

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce Gee Library- Room 162 Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: Office of Student Disability Resources and Services

 $\underline{http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServ}$

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Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

#	Topic
Week 1	Introduction to Operating Systems
Week 2	Memory Management :
	 Early Systems
Week 3	Memory Management :
	 Virtual Memory
Week 4	Processor Management
Week 5	- Exam I Review - Exam I
Week 6	Process Management
Week 7	Concurrent Processes
Week 8	Device Management
Week 9	File Management I
Week 10	Exam 2 ReviewExam 2
Week 11	File Management II
Week 12	Security and Ethics
Week 13	Modern Operating Systems
Week 14	Final Exam