

COSC 3380-110 Operating Systems Theory and Practice

January 13, 2020 – May 8, 2020

Tuesdays and Thursdays 5:30 pm - 6:45 pm

Heritage Hall RM 308

Professor Kay Addison

kayaddison1@tamuct.edu

Phone: 254-519-5469

Location: 323P Texas A&M campus, 3rd Floor

Office Hours

Monday - Wednesday 11am -2pm

By appointment

MODE OF INSTRUCTION AND COURSE ACCESS

This is a face-to-face class. We will use the Canvas for exams, assignments, and grade reporting.

STUDENT-INSTRUCTOR INTERACTION

I will be checking my email (kayaddison1@tamuct.edu) twice daily during the week, in the evenings, and on most Saturdays and Sundays. I can meet face to face, on the phone, or online using web-conference tools. Please contact me to set up an appointment.

UNILERT

Emergency Warning System for Texas A&M University – Central Texas UNILERT is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in UNILERT through their myCT email account. Connect at <https://www.tamuct.edu/departments/security/unilert.php> to change where you receive your alerts or to opt out. By staying enrolled in UNILERT, university officials can quickly pass on safety-related information, regardless of your location.

COURSE OVERVIEW

Examine the design and development of operating systems. Analyze current system software technology, including process management, memory organization, security, and file systems. Prerequisite(s): COSC 2436 or CIS 3330 or CIS 3331 or CIS 3332 or permission of department chair

COURSE OBJECTIVE(S)

By the end of this course, students will be able to:

- Discuss the underlying design concepts and fundamental features of popular operating systems ranging from personal computers to mainframes
- Compare the major families of personal computer operating systems (Windows and Unix)
- Discuss the organization and architecture of computers
- Identify features peculiar to mainframe computers
- Discuss the requirements and methods for process control including multiprocessing, multithreading, and concurrency
- Identify the requirements of memory management including allocation, paging, garbage collection, and security
- Identify issues and methods for managing input/output services

STUDENT LEARNING OUTCOMES:

- Students should be able to measure the performance of an operation
- Students should be able to modify the scheduling algorithms for an operating system and observe operating system performance

REQUIRED TEXTBOOK

Operating Systems Internals and Design Principles 9th Ed.

Author: Stallings

Publisher: Pearson Education

REQUIRED READING

The student is expected to read and review all material presented in the assigned chapter prior to class.

COURSE REQUIREMENTS

- There will be one term paper worth 300 points. The paper must be a comparative analysis of the UNIX and the Windows operating systems. Your paper should include process management, memory management, I/O management, and file management. An automatic 20points will be deducted for using Wikipedia or the class text as a reference. This paper should be 1500 to 2000 words long.
- There will be five assignments each worth 100 points. Unless otherwise noted, the assignment must be turned in as a Word document report. Each document must be named with your last name followed by the assignment number (i.e. Addison Project 1.docx). These reports will be graded on spelling and grammar as well as on demonstrating that the calculations, programs, and measurements were correctly implemented. Unless you make prior arrangements, all late assignments will lose 30% of the available points before being graded. Once an assignment has been graded, it will not be graded again.

GRADING CRITERIA RUBRIC AND CONVERSION

Criteria	Points	Grade	Points
Assignments	500 points	A	900-1000
Paper	300 points	B	800-899
Midterm	100 points	C	700-799
Final	100 points	D	600-699
		F	Below 600

POSTING OF GRADES

- All grades will be posted in Canvas.
- All assignments will be graded within 2 weeks of the due date.
- ****Note:** All late assignments will lose 25 points per late day.
- ****Note:** All due dates are to be taken as midnight of the posted day.
- ****Note:** Grading criteria are subject to change at the discretion of the instructor.

COURSE CALENDAR 2020			
<i>These dates are subject to change at the discretion of the instructor.</i>			
Week	Date	Reading Assignment	Assignment Due
Week 1	1/12	Chapter 1& 2	
Week 2	1/20	Chapter 3	
Week 3	1/27	Chapter 9	
Week 4	2/3	Chapter 9	Due Date: 2/9 Project 1
Week 5	2/10	Chapter 10	
Week 6	2/17	Chapter 10	Due Date: 2/23 Project 2
Week 7	2/24	Chapter 5	
Week 8	3/2	Midterm	Due Date: 3/3 Midterm Project 3
	3/9	Spring Break	
Week 9	3/16	Chapter 5	
Week 10	3/23	Chapter 6	Due Date: 3/29 Project 4

Week 11	3/30	Chapter 4	
Week 12	4/6	Review	Due Date: 4/12 Term Paper Due
Week 13	4/13		
Week 14	4/20		Due Date:4/26 Project 5
Week 15	4/27		
Week 16	5/4		Due Date: 5/5 Final Exam

INSTRUCTOR POLICIES

Copyright Notice

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

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Logon to **<https://tamuct.blackboard.com>** to access the course.

Username: Your MyCT username

(xx123 or everything before the "@" in your MyCT e-mail address)

Initial password: Your MyCT password

Check browser and computer compatibility by using the "Test Your Browser" button, found in the "Check Your Browser" module on your Blackboard dashboard, once you have logged in. **Technology Support.**

For technology issues, students should contact Help Desk Central.

24 hours a day, 7 days a week:

	<p>Email: helpdesk@tamu.edu Phone: (254) 519-5466 Web Chat: http://hdc.tamu.edu</p> <p><i>When calling for support please let your support technician know you are a TAMUCT student.</i></p> <p>For issues related to course content and requirements, contact your instructor.</p>
COURSE AND UNIVERSITY PROCEDURES AND POLICIES	
Drop Policy	<p>If you discover that you need to drop this class, you must go to the Registrar's Office and complete a Drop Request Form. Professors cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the University Calendar for which the form must be returned, completed and signed. Once you return the signed form to the Registrar's Office and wait 24 hours, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid.</p>
Academic Integrity	<p>Texas A&M University -Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student's academic performance and includes, but is not limited to, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student's work, collusion, and the abuse of resource materials. All academic misconduct concerns will be reported to the university's Office of Student Conduct. Ignorance of the university's standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.</p>
Access & Inclusion	<p>At Texas A&M University – Central Texas, we value an inclusive learning environment where every student has an equal chance to</p>

	<p>succeed and has the right to an education that is barrier-free. The Office of Access & Inclusion is responsible for ensuring that students with a disability enjoy equal access to the University's programs, services and activities. Some aspects of this course or the way the course is taught may present barriers to learning due to a disability. If you feel this is the case, please contact Access & Inclusion at (254) 501-5831 in Warrior Hall, Ste. 212. For more information, please visit their website at https://www.tamuct.edu/departments/access-inclusion/ Any information you provide is private and confidential and will be treated as such.</p>
<p>Tutoring</p>	<p>Tutoring is available to all TAMUCT students, both on-campus and online. Subjects tutored include Accounting, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111.</p> <p>If you have a question regarding tutor schedules, contact information, need to schedule a tutoring session, are interested in becoming a tutor, or any other question, contact Academic Support Programs at 254-519-5796, or by emailing Kim Wood at k.wood@tamuct.edu</p> <p>Chat live with a tutor 24/7 for almost any subject on your computer! Tutor.com is an online tutoring platform that enables TAMUCT students to log-in and receive FREE online tutoring and writing support. This tool provides tutoring in Mathematics, Chemistry, Physics, Biology, Spanish, Calculus, and Statistics. To access Tutor.com, click on https://www.tamuct.edu/departments/academicsupport/tutoring.php</p>
<p>University Writing Center</p>	<p>Located in 416 Warrior Hall, the University Writing Center (UWC) at Texas A&M University-Central Texas is a free workspace open to all TAMUCT students from 11am-6pm Monday-Thursday. Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available). Tutors are prepared to help writers of all levels and abilities at any stage of the writing process.</p> <p>While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help</p>

	<p>brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the University Writing Center is here to help!</p> <p>If you have any questions about the University Writing Center, please do not hesitate to contact Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu.</p>
<p>University Library</p>	<p>The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 72,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at TAMUCT are available through our website to help students navigate these resources. On-campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.</p> <p>Research assistance from a librarian is also available twenty-four hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.</p> <p>Our 27,000-square-foot facility on the TAMUCT main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our homepage: https://tamuct.libguides.com/</p>