## CSE 3320.002 Operating Systems Spring 2016

Instructor: Trevor Bakker, ERB 321

Email Address: trevor.bakker@uta.edu

Office Hours: MW 6:30PM - 6:50PM and 8:30-9:00 PM and by appointment.

**Office Phone:** I do not have an office phone. Email is the quickest way to contact me since I am not on campus every day.

Section Information: CSE3320 Section 002

Time and Place of Class Meetings: MW 7:00PM - 8:20 PM, Room: WH 210

**Textbook:** Operating Systems: A Spiral Approach 1st ed, Elmasri, Carrick, Levine ISBN: 9780072449815

Course Website: http://crystal.uta.edu/~bakker/CSE3320/index.html (note the ~)

**Description of Course Content:** Functions and components of an operating system, including process synchronization, job scheduling, memory management, file systems protection, and deadlocks. Related system software, such as loaders, linkers, assemblers, and windowing systems. Prerequisite: CSE 2312; and IE 3301 or MATH 3313 (or concurrently).

**Student Learning Outcomes:** Students will be able to explain, describe and identify key concepts, fundamental algorithms, and major structures in computer operating systems. Students will be able to evaluate and synthesize applied computer operating system theory.

**Descriptions of major assignments**: There will be two exams plus a final exam. There will also be 3 in-class quizzes, 5 programming assignments, and 2-3 kernel programming/familiarization assignments. Quizzes, programming assignments, and kernel assignments are not considered major works. All dates will be posted in advance on the course website. The final exam date is set by the university and is non-negotiable.

## **Important Dates**:

Drop Deadline	April 1st
Exam 1	February 22nd (tentative)
Exam 2	April 4th (tentative)
Final	$\dots$ May 11th, 8:15-10:45p.m. (fixed)

Grading Policy: Grades are based on the following:

Programming Assignments	40%
Quizzes and Homework	10%
Exam 1	15%
Exam 2	15%
Final Exam	20%

No make-up exams will be given. If the grade received on your final exam is greater than one of the earlier exams, then I will replace the lowest of the earlier two exam grades with the grade received on the final exam. In the event of a tie for lowest exam grade among the first two exams, only one will be replaced. A grade of zero on an exam, homework, or programming assignment due to cheating will not be replaced. No extra credit work will be given. Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels; see "Student Support Services," below.

Final letter grades are based on the standard ranges of:

А	90100%
В	8089%
С	7079%
D	6069%
F	059%

Late Submission Policy: All assignments are due at 11:59PM on the date specified in the assignment. Submissions later than 11:59 PM will be considered late and get 0 credit. The submission time will be the time shown on the Blackboard submission system.

Exceptions will only be made for documented emergencies, in strict adherence to UTA policy. Computer/network crashes are not an acceptable excuse for late submissions. To avoid problems with crashes and last-minute problems, students are encouraged to use a personal SCM such as git or subversion and submit early and often. You can always revise your submission until the deadline.

**Expectations for Out-of-Class Study**: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 10 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

Attendance Policy: At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating student's academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I do not require attendance except for quizzes and exams. However, you are strongly encouraged to attend all classes.

**Drop Policy**: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

**Disability Accommodations**: UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA), and Section 504 of the Rehabilitation Act. All instructors at UT Arlington are required by law to provide reasonable accommodations to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD). Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to

learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

**Title IX**: The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos. For information regarding Title IX, visit www.uta.edu/titleIX.

**Electronic Communication Policy**: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honet effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources, I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may

result in the student's suspension or expulsion from the University. Homework assignments, including programming assignments, unless specified, are not group projects; each student is expected to write his or her own programs individually. Code copied from the internet shall be considered a violation of this policy.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at http://www.uta.edu/universitycollege/resources/index.php

**Student Feedback Survey**: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each students feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlingtons effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

**Emergency Exit Procedures**: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

**Final Review Week**: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. Though programming assignments do not constitute major assignments, as a courtesy notice, the final programming assignment will be due May 4th, during final review week. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Phone Numbers**: In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911. Non-emergency number 817-272-3381



**Course Schedule**: A tentative course schedule can be found on the course website and below. Keep in mind that the dates will likely change as the semester progresses and the instructor reserves the right to modify course policies, the course calendar and assignment due dates.

January 20 I January 25 0 January 27 0	Introduction and Chapter 1 Chapter 2	Chapter 1	
	Chapter 2		
January 27		Chapter 2	Program 0 assigned
	CP/M	Chapter 3	
February 1	PALM OS	Chapter 4	
February 3	Mac OS	Chapter 5	Program 0 due / Program 1 assigned
February 8	Mac-User OS / Quiz #1	Chapter 5	
February 10 /	Multi User OS	Chapter 6	
February 15	Parallel Computing	Chapter 7	Program 1 due
February 17	Process Management	Chapter 8	
February 22	Exam 1		Program 2 assigned
February 24	Process Management	Chapter 8	
February 29 /	Memory Management	Chapter 10	
March 2	Memory Management	Chapter 10	Kernel assignment 1 due
March 7	Advanced Memory Management	Chapter 11	
March 9	Advanced Memory Management	Chapter 11	Program 2 due / Program 3 assigned
March 15 S	Spring Break		
March 17 S	Spring Break		
March 21	File System Basics	Chapter 12	Kernel assignment 2 due
March 23	File System Basics / Quiz #2	Chapter 12	
March 28	File System	Chapter 13	
March 30	File System	Chapter 13	Program 3 due / Program 4 assigned
April 4 E	Exam 2		
April 6	Disk Scheduling I/O	Chapter 14	Program 4 design due
April 11	Disk Scheduling I/O	Chapter 14	
April 13	Networking	Chapter 15	
April 18	Networking	Chapter 15 / Quiz #3	Program 4 due / Program 5 assigned
April 20	OS Security	Chapter 16	
April 25	Distributed OS	Chapter 17	Program 5 design due
April 27	TBD		
May 2 F	Review		
May 4 F	Review		Program 5 due
May 11	Final Exam 8:15-10:45p.m.		