

CSCI 530 01W: Operating Systems
Summer II 2015
TENTATIVE SYLLABUS (subject to change at any time)

INSTRUCTOR:

Dr. Ray Maleh
Adjunct Professor, Department of Computer Science
Email: Ray.Maleh@tamuc.edu
Office Hours: Before and after class or by appointment

CLASS MEETING TIMES:

Web Based, July 13, 2015 - August 13, 2015

TEXTBOOK:

Operating Systems *Internals and Design Principles* --- 7th Edition by William Stallings Prentice-Hall Inc., 2009.

COURSE DESCRIPTION:

General theory and concepts behind operating system design are discussed in this course. Topics include operating system structures, memory management, process scheduling, process synchronization and communication, deadlocks, and case studies of other commercially available operating systems.

STUDENT LEARNING OUTCOMES:

1. List and understand the basic functions and parts of an operating system (OS).
2. Understand modern memory management techniques, including virtual memory.
3. Understand fundamental concepts of OS such as multiprogramming and multiuser systems.
4. Understand process management algorithms, structures, and threading.
5. Understand issues with concurrent and parallel programming, including deadlocks.
6. Learn specific mechanisms for modern OS such as Linux and Windows Vista.

METHOD OF EVALUATION (Tentative):

Your grade in the course will be calculated as follows:

Mini-Projects (4x, 10% each):	40 %
Weekly Quizzes (4x, 10% each):	40 %
Final Exam (Week 5)	20 %

Four homework assignments/mini projects will be assigned. The assignments will typically consist of one or two hand calculations as well as a programming component which will ask you to simulate some operating system procedures. The code for these assignments must be in C, C++, or Java (I assume everyone is familiar with at least one of these languages). For the programming components,

please include the output of your program in your homework and provide your source code separately. The due dates of the homework assignments will be announced on e-College. You will have one week to complete each assignment. For each assignment, you will find a template for an ASCII text file that will be used to submit your answers. Along with each template, there is an example solution (with incorrect answers) that follows the appropriate format. You are to submit each mini-project exactly as specified in the template.

There will be four quizzes administered in class every week. The duration of each quiz will be approximately 0.5 hours; however, the instructor reserves the right to give longer or shorter quizzes as deemed necessary. A comprehensive final exam will be administered during the final week of class.

Your final letter grade will be determined as follows:

- A - total number of points ≥ 89.5
- B - $79.5 \leq$ total number of points < 89.5
- C - $69.5 \leq$ total number of points < 79.5
- D - $59.5 \leq$ total number of points < 69.5
- F - total number of points < 59.5

I reserve the right to curve the grades in the course; however, for a given raw average, you will at least earn the grade letter shown above (if not better). As you will notice, I have already incorporated a standard rounding scheme into the schedule of grades. Thus, please do not ask me to round your grade at the end of the semester.

At the end of every semester, there is always at least one student who asks to have his/her final grade changed due to some external heart-breaking circumstance (e.g. I need an "A" because a "B" will keep my core GPA below 3.0 and I can't graduate.) Don't try this on me! It is a waste of my time and your time. The only time I ever change a grade at the end of the semester is if there is an error on my part in grading.

TECHNOLOGY REQUIREMENTS

In order to successfully participate in and complete this course, you must have access to a computer with internet access that can run the e-College software. You will also need access to word processing software (preferably Microsoft Word). Within the e-College interface, you must be accessible with the following tasks: reading and posting to a discussion thread, uploading and downloading documents from "Doc Sharing," uploading homework assignments/papers into an appropriate drop box, and taking exams online. If you are uncomfortable with performing these tasks, then you are encouraged to view the tutorial that is offered on the e-College website. In addition, you can always ask the e-College technical support staff or me if you require assistance.

ACADEMIC ETHICS:

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct).

COURSE DROP POLICY:

Any student wishing to withdraw from the course must do so officially as outlined in the class schedule. THE INSTRUCTOR CANNOT DROP OR WITHDRAW ANY STUDENT. IF YOU SIMPLY STOP COMING TO CLASS WITHOUT FORMALLY DROPPING AND YOU HAVE A FAILING GRADE, I AM REQUIRED TO GIVE YOU AN F.

COURSE REQUIREMENT DEADLINES:

Credit will be given for ONLY those exam(s), program(s), homework(s) and/or project(s) turned in no later than the deadline(s) as announced by the instructor of this course. There will be no exceptions and no excuses accepted.

ACADEMIC ETHICS AND HONESTY STATEMENT:

Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct).

Academic dishonesty includes, but is not limited to, cheating on tests, plagiarism and collusion. *Cheating* includes copying from another student's test or homework assignments or projects or quizzes, using materials not authorized, collaborating with or seeking aid from another student during a test, knowingly using, buying, selling, stealing, or soliciting the contents of an unadministered test, and substituting for another person to take a test. *Plagiarism* is the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work. *Collusion* is the unauthorized collaboration with another person in preparing written work for the fulfillment of course requirements. Academic dishonesty is a serious offense in college. You will be given not only a failing grade on the assignment or test, but also a failing grade for the class. Further, it will result in suspension from college.

PLAGIARISM:

In any written paper or test or assignment or quiz or project including code and/or documentation, you are guilty of the academic offense known as plagiarism if you half-copy or copy another author's sentences, words or any part of the content. **This will result in an automatic grade of "F" for the course.** Hence any of these must be fully avoided in order not to fail the class. Students copying from work done in previous semesters by former students as well as copying from internet sources without proper referencing will result in you failing this course. You cannot mix the author's words with your own or "plug" your synonyms into the author's sentence structure. To prevent unintentional borrowing, resist the temptation to look at the source as you write. The author's words, phrases, sentences must be put in your words and in your way of writing! When you do this, you are demonstrating your ability to understand and comprehend the material!

STUDENTS WITH DISABILITIES:

Students requesting accommodations for disabilities must go through the Academic Support Committee. For more information, please contact the Director of Disability Resources & Services, Halladay Student Services Bldg., Room 303D, (903) 886-5835.

FINAL DISCLAIMER:

The instructor reserves the right to modify the terms of the syllabus at any time. Any modifications to the syllabus will be announced on e-College or via email.