

# CSCI, 530, 01W: Operating Systems

COURSE SYLLABUS: Spring 2020

### INSTRUCTOR INFORMATION

Instructor: Dr. Bilal Abu Bakr – Assistant Professor

Office Location: JOUR 212

Office Hours: TR 11:00 am to 12:30 pm and 2:00 pm to 3:00 pm.

Office Phone: 903-886-5405 Office Fax: 903-886-5888

University Email Address: <u>Bilal.Abu.Bakr@tamuc.edu</u>
Preferred Form of Communication: <u>Bilal.Abu.Bakr@tamuc.edu</u>

Communication Response Time: 48 hours

### **COURSE INFORMATION**

Textbook(s) Required: Operating System Concepts with Java, 8th Edition by Abraham Silberschatz, Peter B.

Galvin and Greg Gagne

Publisher: Wiley

ISBN-10: 047050949X

Meets 1/13/2020 through 5/8/2020

**Web Based Class** 

# **Course Description**

Operating Systems. Three semester hours. The course objectives are two-fold: (1) to learn general theory, concept, and techniques related to the design of operating systems; (2) to practice the design of an operating system by performing a design project. The course is basically divided into four sections: Introduction to Operating Systems, Process Management, Storage Management, and UNIX (Shell and Interpreter)

# **Student Learning Outcomes**

(SLO430.1) Students will be able to identify the basic components, and functions of OS.

(SLO430.2) Students will be able to identify modern memory management techniques.

(SLO430.3) Students will be able to identify components of multiprogramming OS.

(SLO430.4) Students will be able to identify processes, threads, and their management by the OS.

(SLO430.5) Students will be able to identify concurrent programming techniques and job scheduling.

(SLO430.6) Students will learn about some commercially available modern OS.

# **COURSE REQUIREMENTS**

#### Minimal Technical Skills Needed

Students planning to enroll for this course should have mastered the objectives set for an introductory course in computing including the fundamentals of programming (e.g. CSCI 151)

#### **Instructional Methods**

If this course is Face to Face (Lecture), then factual material is presented in a direct, logical manner to motivate the student.

# **Student Responsibilities or Tips for Success in the Course**

From the Students' Handbook: "Students are expected to be present for all class meetings of any course for which they are enrolled. Per University Procedure A13.02, effective September 1, 1996, students are responsible for learning about and complying with the attendance policy stated in the catalog, Student's Guidebook, and/or faculty syllabus. It is the prerogative of the faculty to drop students from courses in which they have accrued excessive absences as defined in the course syllabus."

The instructor will take the attendance at the beginning of each lecture and only once.

If a student misses 3 or more lectures without legitimate reasons, the instructor will make the student drop the course. If this is not possible, the letter grade of 'F' will be assigned to the student.

Lateness and leaving class early may count as an absence and are not acceptable unless you are ill or a family emergency exists. If you miss a lecture, it is your responsibility to obtain notes from a fellow student. Office hours are not meant for individual lectures. Any class material missed by the student is the student's responsibility to acquire.

Examples include: Regularly logging into the course website, amount of weekly study and participation time expected, etc.

#### GRADING

Final grades in this course will be based on the following scale:

A = 90% - 100%

B = 80% - 89%

C = 70% - 79%

D = 60% - 69%

#### **Assessments**

Assignments	25%
Quizzes	25%
Mid Term	25%
Final	25%

# 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

#### 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

Guidelines for email messages to Dr. Bilal Abu Bakr

Replies to messages that do not conform to the following requirements might be delayed or missing (e.g., due to automatic classification of the message as junk mail):

The message should be sent from an Texas A&M account - ending with "tamuc.edu".

The message should have a descriptive subject with the indicated prefix:

CSCI # -Semester YEAR--<CWID>: <descriptive subject>

I will reply you within 48 hours.

#### COURSE AND UNIVERSITY PROCEDURES/POLICIES

# **Course Specific Procedures/Policies**

### **Late Policy**

The deadline for any assignment can be extended with a 15% penalty per day. No deadline can be extended by more than two days. Assignments will NOT be accepted 48 hours after the due date. No technical excuse (e.g., eCollege technical problem).

# **Makeup Policy**

There will be no makeup exams in general. Makeup exams may be given to students under extreme circumstances, such as hospitalization, serious injury, death in the family etc., with prior notification and official documents.

Students are expected to do the readings, attend class, and participate in class discussions.

If this course is Face to Face (Lecture), then I Do Not share my PowerPoint slides and class notes, except under extenuating circumstances. You are responsible for the content of all classes, including issues raised in the spontaneous class discussions. If you must miss a class, please request notes from your classmates prior to contacting me. Attendance may be checked at random throughout the semester.

# Collaboration Policy

Students are encouraged to talk to each other, to the instructor, or to anyone else about any of the assignments. Any assistance, though, must be limited to discussion of the problem and sketching general approaches to a solution. Each student must write out his or her own solutions to the homework. Consulting another student's or group's solution is prohibited, and submitted solutions may not be copied from any source. These and any other form of collaboration on assignments constitute cheating. If you have any question about whether some activity would constitute cheating, please feel free to ask.

# **Academic Integrity**

Your commitment as a student to learning is evidenced by your enrollment at Texas A &M University-Commerce. "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 Procedure, Conduct). All phones, pagers, and other communication devices are to be turned off or place on silent mode during class. Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified.

Anyone cheating will receive a zero on the work they are doing, and subsequent cheating will result in a failing grade.

# **Basic Tenets of Common Decency**

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student's Guide Handbook, Policies and Procedures, Conduct.) This means that rude and/or disruptive behavior will not be tolerated.

# Smoke, Vapor & Tobacco Free Environment

University Procedure 34.05.99.R1 now prohibits the use of vapor/electronic cigarettes, smokeless tobacco, snuff and chewing tobacco inside and adjacent to any building owned, leased, or operated by A&M – Commerce.

#### **Disclaimer**

This syllabus is meant to provide general guidance of what to expect from this course. The instructor reserves the right to make changes as appropriate based on the progress of the class. All changes made to this syllabus during the semester will be announced. This document has been posted electronically. If you print a copy of it, please be sure to consult the last modified date of the online version to verify that your printed copy is current.

# **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 <a href="Student Guidebook">Student Guidebook</a>.

 $\underline{http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as}\\px$ 

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:

Undergraduate Academic Dishonesty 13.99.99.R0.03

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

The syllabus/schedule are subject to change.

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

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServ

ices/

#### **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

Week	Topic
1 - 2	Introduction
3	Operating-System Structures
4 - 7	Processes
8	Midterm Exam

9 – 10	Threads
11 – 13	CPU Scheduling
14 – 15	Process Synchronization
15	Deadlocks
16	Final Exam