



## **CSCI, 525, 01W, Networking I**

COURSE SYLLABUS: Spring 2019

### **INSTRUCTOR INFORMATION**

Instructor:	Dr. Bilal Abu Bakr – Assistant Professor
Office Location:	JOUR 212
Office Hours:	TR 11:30 am to 12:30 pm and 2:00 pm to 3:30 pm
Office Phone:	903-886-5405
Office Fax:	903-886-5888
University Email Address:	<a href="mailto:Bilal.Abu.Bakr@tamuc.edu">Bilal.Abu.Bakr@tamuc.edu</a>
Preferred Form of Communication:	<a href="mailto:Bilal.Abu.Bakr@tamuc.edu">Bilal.Abu.Bakr@tamuc.edu</a>
Communication Response Time:	48 hours

### **COURSE INFORMATION**

Textbook(s) Required:	Computer Networking: A Top-Down Approach (7th Edition)
Publisher:	Pearson; 7 edition (May 6, 2016)
ISBN-10:	0133594149
ISBN-13:	978-0133594140
Meets	1/14/2019 through 5/10/2019
Web Based Class	

### **Course Description**

This course provides a self-contained overview of computer networking by introducing many key concepts and terminology. In particular, we will study the concepts of computer networks and communication including layered architecture, network application services and domain name resolution, transport layer services and TCP/UDP protocols, network layer forwarding and routing functions and subnet/NAT configurations, and link layer functions with the focus of Ethernet standards.

*The syllabus/schedule are subject to change.*

## **Student Learning Outcomes**

- a) An ability to analyze a problem, and to identify and define the computing requirements appropriate to its solution.
- b) An ability to design, implement, and evaluate a computer-based solution to meet a given set of computing requirements in the context of the discipline.
- c) Define basic data communications, networking topologies, and computer networks State representative network application services and protocols
- d) Gain knowledge on standard transport layer services and protocols (TCP and UDP)
- e) Understand Subnetting, and the use of IP addresses, and how these networks connect with each other.
- f) Understand the core of computer network, delay, losses, and throughput of data in a computer network.
- g) Understand the models that take into account transmission, propagation, and Queen Delay.
- h) Learn the key architectural principles of computer networking, namely, protocol layering and service models

## **COURSE REQUIREMENTS**

### **Minimal Technical Skills Needed**

Students should be familiar with certain basic programming techniques that are largely independent of any specific programming language – Object Oriented Programming (OOP)

### **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.

*The syllabus/schedule are subject to change.*

## 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%

F = 59% or Below

## 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](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

*The syllabus/schedule are subject to change.*

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](mailto: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).

*The syllabus/schedule are subject to change.*

## **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.

*The syllabus/schedule are subject to change.*

## **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.aspx>

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 [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<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>

*The syllabus/schedule are subject to change.*

## **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](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

## **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 [Carrying Concealed Handguns On Campus](#) 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.

*The syllabus/schedule are subject to change.*

## COURSE OUTLINE / CALENDAR

Week	Topic
1 – 3	1. Computer Networks and the Internet
4 – 6	2. Application Layer
7	3. Transport Layer
8	<b>Midterm Exam</b>
8-9	3. Transport Layer
10-12	4. The Network Layer
13-15	5. The Link Layer: Links, Access Networks, and LANs
16	<b>Final Exam</b>

*The syllabus/schedule are subject to change.*