The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to student community resources. Students have 24/7 access the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel



CSCI 525.02W Networking I

COURSE SYLLABUS: Fall 2022

(Revision date: August 21, 2022)

INSTRUCTOR INFORMATION

Instructor: Gregory Newman, DIT Office Location: By appointment (Preferred Form of Communication: Email and schedule appointment(s) Communication Response Time 24 hours or sooner). Office Hours: Will be announced through the course page University Email Address: Gregory.Newman@tamuc.edu

COURSE INFORMATION

Textbook(s) Required: [KR] Computer Networking: A Top-Down Approach, 6th edition, James Kurose and Keith Ross, ISBN: 0132856204, Addison-Wesley, 2012. Software Required: Wireshark, Python/Java Optional Texts and/or Materials: None

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.

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Student Learning Outcomes (Should be measurable; observable; use action verbs)

1. Define and understand basic data communications, networking topologies, and layered architecture.

2. Observe and gain experience with networking platforms from the TCP/IP environment.

3. Understand the fundamentals of datagram networks, IP addresses, and routing algorithms and protocols.

4. Integration of the basic networking concepts into an understanding of modern computer networking.

COURSE REQUIREMENTS

Prerequisites

None

Minimal Technical Skills Needed

- Basic knowledge of computer systems and operating systems
- Basic knowledge of data structure, algorithms, and statistics/probability
- Basic knowledge of Python (or Java) programming

Instructional Methods

• Online class: online materials

Student Responsibilities or Tips for Success in the Course

- On-time submission of homework assignments
- Should be well prepared for exams
- Class attendance (mandatory) and active participation of class activities. Note that there will be no penalty up to two absences due to emergency reasons (including COVID-19) upon the provision of a relevant document (e.g., doctor's note).

GRADING (Tentative)

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

Components	Weight	Remarks
Assignments	30%	Homework assignments
Midterm exam	30%	Two exams and the highest score will be chosen
Final exam	30%	Cumulative
Class participation	10%	Attendance and class activities

Weights of the assessments in the calculation of the final letter grade:

Late Policy (Assignments):

The deadline for the assignment can be extended with a 15% penalty per day, up to two additional days. No submission will be accepted 48 hours after the deadline.

Makeup Policy (Exams):

Makeup chances may be given to students under extreme circumstances only, such as hospitalization, serious injury, death in the family, etc, with prior consent <u>and</u> the supporting document (officially issued).

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 the 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.ht m

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 <u>helpdesk@tamuc.edu</u>.

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Note: Personal computer and internet connection problems do not excuse the requirement to complete all coursework in a timely and satisfactory manner. Each student needs 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

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

N/A

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 N/A 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/studentGuid ebook.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

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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 Undergraduate Student Academic Dishonesty Form

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Student Academic Dishonesty Form

http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDis honestyFormold.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

Texas A&M University-Commerce Velma K. Waters Library Rm 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 The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/studentAndServices/stud

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.

A&M-Commerce Supports Students' Mental Health

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COURSE OUTLINE / CALENDAR

Tentative schedule: 8/29/2021-12/16/2022 Part 1: Overview of computer networks, Chapter 1 (Week 1-2) Part 2: Application layer, Chapter 2 (Week 3-4) Midterm Exam (1): Week 5 Part 3: Transport layer, Chapter 3 (Week 6-7) Part 4: Network layer (1), Chapter 4.1-4.4 (Week 8-9) Midterm Exam (2): Week 10 Part 5: Network layer (2), Chapter 4.5-4.6 (Week 11) Part 6: Link layer, Chapter 5.1-4.4 (Week 12-13) Course review: Week 14 Final Exam: Week 15 Socket Programming: Week 16