Texas A&M University – Texarkana
CS 420. Computer Networks
Course Syllabus
Spring 2021
(Last Updated January 16, 2021)

Instructor:	Sapana Acharya, MBA – IT, MCA
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Course Number:	CS 420
Course Title:	Computer Networks
Course Times:	Online/Web/Blackboard
Semester Credit Hours:	3

Course Description: Students learn the basic computer networking concepts including ISO/OSI and TCP/IP reference model for networking protocols. The topic covers network architectures, communication protocols, physical media, error control, data link control, medium access control, local area networks, network layer, congestion control, and introduction to virtual circuit and datagram network. The course will also include the case studies and lab assignments for existing networks and network architecture. Prerequisite: CS 332.

Course Delivery Method: Online/Web/Blackboard

Required Textbooks/Resources:

> Computer Networks
> Author: Tanenbaum
> Edition: 5th
> ISBN: 9780132126953
> Copyright Year: 2011
> Publisher: Pearson

Student Learning Outcomes:

Students will be able to describe the hardware, software, and services that comprise an enterprise computer network and be able to articulate how these components integrate to form network solutions. Explain key networking protocols and their hierarchical relationship in the context of a conceptual model such as the OSI and TCP/IP framework; be able to articulate the low-level data communications and subsequent abstractions that allow networked hosts and applications to communicate across the internet. Build multiple host and network architectures given business requirements and constraints. Student will configure operating systems, network

specific services, routing, switching, and remote access solutions in satisfaction of these learner outcomes.

Course Outline: Each of the following topics will be covered in this course:
- Introduction to Computer Networking
- Physical Layer
- Data Link Layer
- Medium Access Control Sublayer
- Network Layer
- Transport Layer
- Application Layer
- Network Security

Methods of Evaluation: Mastery of concepts will be evaluated through, but not limited to, quizzes, assignments, and exams.

Means of Evaluation: Grades will be based on the timely completion of the quizzes, assignments, and exams. The semester grade will be based on the following.

Quizzes	20%
Assignments	20%
Mid-term exam	30%
Final Exam	30%
Total	**100%**

Grading Scale:
> A => 90
> B => 80
> C => 70
> D =>60
> F < 60

Final grades may be curved based on overall class performance. Grades are final once submitted and are not changed unless a grading error has been made.

Library/Media Resources Assessment: Audio and video podcasts will be included to explain some concepts.

Student Participation:

1. Each week, you are expected to read the assigned material and book reading thoroughly. It is advised that you jot down important concepts and make notes as you read the content. These notes will become handy while reviewing the material for exams.

2. Quizzes will be an online, open book, open notes and usually about 1 hour in length. Generally, questions will involve multiple choices, fill-in-blanks, and short answers. You should master the content before taking the quiz. The quiz is to be completed in one sitting. You will have one hour to complete the quiz.

3. You can attempt the quiz <u>only once</u>. Make sure you are on a stable computer at home/workplace that has a steady Internet connection and the one that does not hang on you when you take the quiz. In the whole semester, I will only reset up to two quizzes for you in case you are logged off inadvertently before you could finish the quiz. If you are not able to fix the problem even after being reset twice, then you will be stand to lose points for non-completion of the quizzes. Though, you will receive credit for the completed portion of the quizzes.

4. The quiz must be submitted within the allowed time. No late submissions will be permitted.

5. Assignments will be made throughout the semester to evaluate your knowledge of information covered in class. Assignments will be post on Blackboard.

6. All written assignments should contain the <u>student's name, class title, and the title of the assignment</u> on each document submitted. Any "extra credit" assignments will be identified and due prior to end of the semester.

7. Mid-Term Examination and final Examination: Exam will cover all materials presented up to the time of the exam, emphasizing materials covered within the specified time frame. Format will be multiple choice, fill-in-the-blank, and short essay types answers. The week wise content can be found in the schedule that will be posted on Blackboard.

8. You will <u>not</u> be allowed to use your cell phone while taking the exams. Accessing google or any other website during the exam will constitute offence of using unfair means (cheating) and grades can get affected as per the university policies.

9. Please check the schedule (week-wise) of the course regarding the exam dates and arrange in advance accordingly.

Course Etiquette: Email will be best way to reach me. You can expect a reply from me in one weekday. Generally, I reply in less than 8 hours.

Discussion Board Standards: University policies will be applicable in case discussion boards are used.

Disability Accommodations: Students with disabilities may request reasonable accommodations through the A&M-Texarkana Disability Services Office by calling 903-223-3062.

Academic Integrity: Academic honesty is expected of students enrolled in this course. Cheating on examinations, unauthorized collaboration, falsification of research data, plagiarism, and undocumented use of materials from any source constitute academic dishonesty and may be grounds for a grade of 'F' in the course and/or disciplinary actions. For additional information, see the university catalog.

A&M-Texarkana Email Address: Upon application to Texas A&M University-Texarkana an individual will be assigned an A&M-Texarkana email account. This email account will be used to deliver official university correspondence. Each individual is responsible for information sent and received via the university email account and is expected to check the official A&M-Texarkana email account on a frequent and consistent basis. Faculty and students are required to utilize the university email account when communicating about coursework.

Drop Policy: To drop this course after the census date, a student must complete a Drop/Withdrawal Request Form, located on the University Registrar's webpage or obtained in the Registrar's Office. The student must submit the signed and completed form to the instructor of each course indicated on the form to be dropped for his/her signature. The signature is not an "approval" to drop, but rather confirmation that the student has discussed the drop/withdrawal with the faculty member. The form must be submitted to the Registrar's office for processing in person, email Registrar@tamut.edu, mail (7101 University Ave., Texarkana, TX 75503) or fax (903-223-3140). Drop/withdraw forms missing any of the required information will not be accepted by the Registrar's Office for processing. It is the student's responsibility to ensure that the form is completed properly before submission. If a student stops participating in class (attending and submitting assignments) but does not complete and submit the drop/withdrawal form, a final grade based on work completed as outlined in the syllabus will be assigned.

Class Participation: Students are responsible for beginning their participation on the FIRST-CLASS DAY by logging on and completing assignments according to the COURSE CALENDAR. Failure to submit online assignments between the first day of classes and the University census date (according to the University schedule) will result in an ADMINISTRATIVE DROP from the course.

Students with federal loans and/or grants:

Students who have federal loans and grants must be aware that participation is monitored in online courses. In the event a student withdraws from a course the student will be required to refund all federal funds prorated from the last date of participation. A student's last access to Blackboard would not suffice as participation. The required weekly activity could include a comment to a blog, a discussion board posting, a journal entry, a quiz or exam, a submitted assignment, or other measurable and tracked activity.

Student Technical Assistance:

Solutions to common problems and FAQ's for your web-enhanced and online courses are found on the Online Student Training page on our website.

If you cannot find your resolution there, you can submit a support request by contacting the IT Service Desk:

Email: isite@tamut.edu

Phone: 903-334-6603

Submit a Support Request

Additional student help for Blackboard can be found here:

Blackboard Help for Students