



CISA 2306:001, **Computer Networks**, Fall 26, CRN: 11188
Department of Computer and Information Systems (CISA), College of Business

Course Syllabus

Class Modality: Hybrid/Blended Instruction Method

Class Meeting Time and Place: M, 2:00 PM – 4:45 PM, STEM 165

Class Meeting Zoom Link: <https://tamusa.zoom.us/my/sahan.tamusa>

Class Duration: Aug 24, 2026 – Dec 11, 2026

Instructor: Sahan Ahmad, Ph.D .

Course Website: <https://tamusa.blackboard.com/>

Office Room: BLH 441G

Tel: 337-255-0075

E-Mail: sahmad@tamusa.edu

Office Hours:

In Person: Monday : 12:20 PM-1:20 PM

In Person: Tuesday: 12:20 PM-1:20 PM

Zoom Meeting: <https://tamusa.zoom.us/my/sahan.tamusa>

Email: sahmad@tamusa.edu

Email the professor for communication to zoom meeting (Mon – Fri)

Catalog Course Description: This course covers subjects related to computer networks, including TCP/IC and OSI models, network applications, distributed systems, and an introduction to network security. The course focuses on concepts, principles, and technologies that enable the integration of information and telecommunications systems to support internal and external business activities. This course will also cover Network system design for large corporations.

Course Objectives:

- To learn basic knowledge of networking technologies and network management concepts
- To understand the layering concepts in computer networks (OSI).
- To analyze the functions of each layer (OSI) and gain knowledge in different applications that use computer networks.

- To emphasize the hand-on experience of network topology, analysis in a laboratory environment
- To be familiar with contemporary issues in networking technologies
- To learn how design network system for large corporations

Specific topic coverage includes:

- Introduction to Networking
- How Computers Find Each Other on Networks
- How Data Is Transported Over Networks
- Structured Cabling and Networking Elements
- Network Cabling
- Wireless Networking
- Network Routing Path Calculation
- Cloud Computing and Remote Access
- Network Risk Management
- Unified Communications and Network Performance Management
- Network Segmentation and Virtualization
- Wide Area Networks
- Industrial and Enterprise Networking
- System Design

Student Learning Outcomes:

After successful completion of this course, students will be able to:

1. To understand the organization of computer networks, factors influencing computer network development, and the reasons for having various types of networks.
2. To contrast the protocol architectures such as OSI and TCP/IP
3. To explain how switches and router's function.
4. To demonstrate the proper placement of different layers of the ISO model and illuminate its function.
5. To be familiar with several network tools and network programming.
6. To determine proper usage of the IP address, subnet mask, and default gateway in a routed network.
7. To understand the internals of main protocols such as HTTP, FTP, SMTP, TCP, UDP, IP, etc.
8. To impart basic concepts and basic skills for setting up routers
9. To understand network system design for large corporations

AACSB Assessment:

The College of Business is in the process of applying for AACSB accreditation. As part of that process, students will be assessed on program-level outcomes based on course outcomes from various courses. The materials from this course may be used for assessing such program-level outcomes. Hence, students must follow the necessary rigor to ensure mastery and retention of the above course outcomes.

Required Materials:

Textbook: Jill West, Jean Andrews (Ph.D.), Tamara Dean, Network+ Guide to Networks , 8th Edition. Cengage Learning, 2021, ISBN: 978-1-3375-6933-0.

Additional Textbooks:

- System Design Interview , an insider guide by Alex Xu 2nd edition
- ✦ **Blackboard:** Connect to <http://tamusa.blackboard.com>. You will have lecture notes, solutions to problems, multimedia materials, and other supplementary materials in Blackboard. All class communications will be through Blackboard, and students should monitor this several times a day.
- ✦ **Time Expectation for coursework:** You are expected to spend 4-8 hours per week for the course. Based on the background, some student may require more time. Time spent may be longer when assignment/exams are due.

Other Recommended / Reading Materials: Additional reading materials are available on the course website as the instructor recommends.

Course Requirements every student must fulfill to succeed in the course:

1. Students should regularly check the Course Calendar, Announcements, and Messages (e-mail) systems in Blackboard.
2. Students should keep current with all course assignments, quizzes, and examinations.
3. Students should ask questions and communicate with the instructor in class, online, offline, or during office hours.
4. For all classwork, exams, quizzes, etc., if a student is completing it off-campus, they are responsible for the availability of internet connectivity. Extensions will **not** be granted for lack of availability of internet connections.

Projected Grades Distribution (Subjected to possible slight changes, without notice)

Grading Policy: The final course grade will be based on your performance on exams and class participation using the following weights:

Assignments	30%
Exam 1	15%
Exam 2	15%
Research Project and Presentation	20%
Final Exam (as per University Schedule)	20%
=====	
Total	100%

The final letter grades will be assigned as follows: Above 90% □ A; 80 – 89% □ B; 70 – 79% □ C; 60 – 69% □ D; Below 60% □ F.

Examinations and assignments: There will be multiple assignments and exams during the semester. The assignments and exams will consist of conceptual multiple-choice, problem-solving, and short essay questions. The assignments /exam materials will come from lecture notes, the text, and class discussions. Questions will emphasize understanding and applications of concepts and topics covered in class. Exams will be in person during class time.

University Email Policy and Course Communications

All correspondence between professors and students must occur via university email accounts. You must have your Jaguar email account ready and working. If it is not working, contact the help desk at helpdesk@tamusa.edu or at 210-784-HELP (4357). If you don't hear back within 48 hours, contact them again. They have many requests during the first part of the semester, so you may need to follow up with them.

Academic Accommodations for Individuals with Disabilities

Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation Act. If you experience barriers to your education due to a disability or think you may have a disability, Disability Support Services is in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us at the website or email us at dss@tamusa.edu. Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their academic accommodation with Disability Support Services and their instructors as soon as possible.

Academic Learning Center

All currently enrolled students at Texas A&M University-San Antonio can utilize the Academic Learning Center for subject-area tutoring. The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the Tools section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784- 1307, or visiting the Central Academic Building, room 202. Online tutoring is also available for after hours and weekend assistance.

Counseling/Mental Health Resources

As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, visit our website, call 210-784-1331 or visit Madla 120 between the hours of 8:00 AM and 5:00 PM.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. Crisis support is available 24/7/365 by calling the SCC at 210-784-1331 or through the TELUS student support App.

The [TELUS Student Support App](#) provides a variety of mental health resources to include 24/7/365 support for in the moment distress, crisis support, an anonymous peer-to-peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.

Emergency Preparedness

JagE Alert is Texas A&M University-San Antonio's mass notification system. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit the [Jag E Alert System website](#). You can access more information about [Emergency Operations Plan and the Emergency Action Plan on our website](#). Download the [SafeZone App](#) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance

According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended by the published Census Date (the first week of class). Any student receiving federal financial aid who does not attend prior to the published Census Date (the first week of class) will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Jaguar Writing, Language, and Digital Composing Center (WLDCC)

The Jaguar Writing Center provides writing support to graduate and undergraduate students in all three colleges as well as faculty and staff. Writing tutors work with students to develop reading skills, prepare oral presentations, plan, draft, and revise their written assignments. Our language tutors support students enrolled in Spanish courses and students composing in Spanish for any assignment. Our digital studio tutors support students working on digital projects such as e-portfolios, class presentations, or other digital multimedia projects.

The Writing Center offers face-to-face, synchronous online, and asynchronous digital appointments. Students can schedule appointments with the Writing Center in JagWire under the **Student Services tab**. Click on **Writing, Language, and Digital Composing Center** to make your appointment. Students wanting to work in real time with a tutor can schedule an **Online Appointment**. Students wishing to receive asynchronous, written feedback from a tutor can schedule an **e-Tutoring appointment**. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on the [Writing Center's website](#). The Writing Center can also be reached by emailing: writingcenter@tamusa.edu.

Meeting Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food to eat every day or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to [submit a CARE report for support](#). Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources. The [General's Store is a food pantry](#) that is available on campus as well.

Military Affairs

Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots' Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Religious Observances

Texas A&M University-San Antonio recognizes the wide variety of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided with an opportunity to make up any examination, study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

The Six-Drop Rule

Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Statement of Harassment and Discrimination

Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual on our campus and within our state, nation, and world. All decisions and actions involving students and employees are to be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, based on race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the University's Civil Rights Officer at 210-784-2061 or titleix@tamusa.edu. Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university. If you have experienced any form of sex discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking based on sex, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related sex-based misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students

Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will provide reasonable accommodation for pregnant students as it would be provided to a student with a temporary medical condition that is related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784-2061; CAB 439K).

Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources. Young Jaguars can support parenting students with daycare if students meet this criteria: (1) must be enrolled in classes at Texas A&M-San Antonio in the current semester, (2) must be Pell eligible or a single parent, (3) child(ren) must be aged 3 to 12-years-old, and (4) child(ren) must be enrolled in Pre-K-3 through 6th grade. For more information, please contact Young Jaguars at youngjaguars@tamusa.edu or call (210) 784-2636.

Students' Rights and Responsibilities

The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university students' rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty, and administration.
2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and University Catalog, and to comply with them, as well as with federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to recognize the University's obligation to provide a safe environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notifications.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the [Student Code of Conduct](#) or visit the resources available in the [OSRR website](#).

Use of Generative AI Permitted Under Some Circumstances or With Explicit Permission

Artificial intelligence tools (ChatGPT, Claude, GitHub Copilot, Grammarly, etc.) are neither universally permitted nor universally banned in this course. Their use is **task-dependent** and clearly marked on each assignment. To adhere to our scholarly values, students must cite any AI-generated material that informed their work (this includes in-text citations and/or use of quotations and in your reference list). Using an AI tool to generate content without proper attribution qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

More details information of AI use will be found on each assigned task. If no guidelines are present, contact the instructor for guidelines how to use AI tools on that task.

Important Dates Summer 2026:

Fall 2026

Date	Day	Event
August 19	Wednesday	Student enrolled will receive a billing statement
August 20	Thursday	Tuition & fee payment deadline
August 20	Thursday	Payment of Balance on student account due or payment plan set up
August 21	Friday	\$35 late payment fee assessed
August 21	Friday	Last day to withdraw from all classes to receive a 100% refund of tuition and fees
August 24	Monday	First class day
August 28	Friday	Last day to withdraw from all classes to receive an 80% refund of tuition and fees
August 31	Monday	Last day to register
September 4	Friday	Last day to withdraw from all classes to receive a 70% refund of tuition and fees
September 7	Monday	Labor Day Holiday - No Classes / University Closed
September 9	Wednesday	Census Date - Students not paid in full or enrolled in a payment plan by 4:59PM may be dropped for non-payment
September 11	Friday	Student enrolled will receive a billing statement
September 14	Monday	Last day to withdraw from all classes to receive a 50% refund of tuition and fees
September 21	Monday	Last day to withdraw from all classes to receive a 25% refund of tuition and fees
October 5 - October 16	Monday-Friday	Midterm grading period
November 13	Friday	Last day to drop with an automatic grade of "W"
November 25	Wednesday	Study day - No Classes
November 26 - November 28	Thursday - Saturday	Thanksgiving Holiday - No Classes / University Closed
November 30	Monday	Last day to withdraw from the university
December 4	Friday	Last day of scheduled classes for weekday classes
December 5 - December 11	Saturday - Friday	Final examinations
December 11	Friday	End of term
December 15	Tuesday	Commencement
December 16	Wednesday	All grades due by noon
December 17	Thursday	Grades available in JagWire

Figure 1: Academic Calendar