

Texas A&M University-Central Texas

College of **Business Administration**

CIS 4388-110, CRN 80673 – Networking Architecture and Design

Fall 2019 rev. 08.06.2019

Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

August 26–December 13, 2019

Independent Study

Course Access

This is an independent study course that will be completed through face to face, email and phone interactions. Assignment submissions can be emailed to the professor or uploaded in canvas

INSTRUCTOR AND CONTACT INFORMATION

Instructor: Dr. Anitha Chennamaneni

Office: Texas A&M University Central Texas FH 323

Phone: (254) 519-5463

TAMUCT Email: anitha.chennamaneni@tamuct.edu

Preferred Email: Course Canvas Site, Inbox tool.

Alternate (if Canvas is down): anitha.chennamaneni@tamuct.edu

Office Hours: **Monday** 11 am – 1 pm

Wednesday 11 am - 1 pm

Thursday 11 am - 1 pm

Other days and times by appointment only

Student-instructor interaction: Please send all course related email correspondence through Canvas Inbox Tool. Please use TAMUCT email only when Canvas is not available. I check email

several times a day during the week and at least once during the weekends. I will respond within 24 hours and within 48 hours on Saturday through Sunday. Please do not hesitate to stop by my office during the scheduled office hours or contact me via phone / Canvas Conversations Tool or *TAMUCT email*, if there are any personal problems or challenges that are hindering your regular progress in the course.

WARRIOR SHIELD - Emergency Warning System for Texas A&M University-Central Texas

Warrior Shield is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in Warrior Shield through their myCT email account.

Connect to Warrior Shield by [911Cellular](https://portal.publicsafetycloud.net/Account/Login) [<https://portal.publicsafetycloud.net/Account/Login>] to change where you receive your alerts or to opt out. By staying enrolled in Warrior Shield, university officials can quickly pass on safety-related information, regardless of your location.

COURSE INFORMATION

Course Overview and Description

A study of network architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Network designs will include required components and address services as specified in an industry specific Request for proposal (RFP). Application exercises will include preparing and presenting a design proposal in response to an RFP and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies.

Course Objectives

A student successfully completing this course will be able to:

- Describe the network analysis, architecture, and design processes.
- Identify network analysis, architecture, and design process components.
- Describe the tactical and strategic significance of network analysis, architecture, and design.
- Describe the analysis requirements.
- Identify the network analysis process.
- Identify and characterize traffic flows.
- Discuss the relationship between and within network components.

- Demonstrate proficiency in IP addressing and routing.
- Describe network management and methodologies.
- Describe network performance.
- Identify mechanisms used to achieve optimal network performance.
- Identify the various security mechanisms required in networks.
- Determine the relationship between security mechanisms and network architecture.
- Conduct research
- Demonstrate proficiency in network design processes.

Required Textbook

Required Text: Computer Networks: A Systems Approach: 5th edition

Authors: Larry Peterson, Bruce Davie.

Note: A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

- **Supplementary Material:** The course textbook will be supplemented with other materials including handouts, oral presentations, industry articles, videos, research paper readings, case studies, power point presentations etc.
- **On-Line References TBA**

Current publications - The campus library contains numerous books and periodicals relating to Computer Science. The student should take advantage of this resource by visiting the library.

COURSE REQUIREMENTS

- **Reading Assignments:** All assigned chapters will be used as basis for class /canvas discussions. Students are expected to study the assigned readings before each class session.
- **Examinations** - There will be two exams. Each is worth 250 points. Makeup exams will be given ONLY when arrangements have been made PRIOR to the class meeting
- **Assignments:** There will be five assignments during the semester. Each assignment is worth 100 points. Assignments stress critical thinking by applying concepts learned in this course. Occasionally, some individual outside research will also be required. Assignments must be submitted before the end of the day (11:59 PM) on the due date mentioned in the course schedule. If an assignment has multiple files, you will be required to “zip” the files prior to submission via Canvas.

NOTE: Assignments turned in after due date are considered *late*. 5 points will be deducted for each day assignment is late. Special circumstances need to be discussed

with the instructor ahead of time when possible.

Grading Criteria Rubric and Conversion

Assignment	Points	Percent	My Grade
Midterm Exam	250 points	25%	
Final Exam	250 points	25%	
Assignments	500 points	50%	
Total	1000 points	100%	

89.5-100%	895-1000 points	A
79.5-89.4%	795-894 points	B
69.5-79.4%	695-794 points	C
59.5-69.4%	595-694 points	D
0-59.4%	0-594 points	F

Posting of Grades:

All student grades will be posted in the Canvas Grade book and students should monitor their grading status through this tool. Grades for weekly assignments, discussions, quizzes and exams will be posted within 7 days following the due date.

CALENDAR

Complete Course Outline

The instructor reserves the right to make changes to this syllabus. Any changes that effect grades or grading will be made in writing.

Week	Week of:	Topic	Assignments Due
1	8/26/2019	Course Welcome, Introduction, and Expectations Chapter 1	
2	9/2/2019	Chapter 2	
3	9/9/2019	Chapter 2	Assignment1

4	9/16/2019	Chapter 3	
5	9/23/2019	Chapter 3	Assignment 2
6	9/30/2019	Chapter 4	
7	10/7/2019	Chapter 4	Assignment 3
8	10/14/2019	Chapter 5	Exam1 covers chapters 1- 4, available online Oct 17, 8 a.m. – Oct 20 , 11:59 p.m.; once started must be completed in same session
9	10/21/2019	Chapter 5	
10	10/28/2019	Chapter 6	
11	11/4/2019	Chapter 6	Assignment 4
12	11/11/2019	Chapter 7	
13	11/18/2019	Chapter 7	
14	11/25/2019	Chapter 8	Assignment 5

15	12/2/2019	Chapter 8	
16	12/9/2019	Final Exam	Exam2 covers chapters 5 - 8, available online Dec 9, 8 a.m. – Dec 11, 11:59 p.m.; once started must be completed in same session

Important University Dates:

Date	Activity
08/26/2019	Classes Begin for Fall Semester
08/26/2019	Add, Drop, and Late Registration Begins for 16- and First 8-week Classes
08/28/2019	Deadline for Add, Drop, and Late Registration for 16- and First 8-week
09/02/2019	Labor Day (University Closed)
09/03/2019	Deadline to Drop First 8-week Classes with No Record
09/11/2019	Deadline to drop 16-week Classes with No Record
10/01/2019	Deadline for Teacher Education and Professional Certification Applications
10/04/2019	Deadline to Drop First 8-week Classes with a Quit (Q) or Withdraw (W)
10/04/2019	Deadline for Graduation Application for Ceremony Participation
10/15/2019	Deadline for Clinical Teaching/Practicum Applications
10/18/2018	Classes End for First 8-week Session
10/18/2019	Deadline to Withdraw from University for First 8-Week Classes (WF)
10/21/2019	Add, Drop, and Late Registration Begins for Second 8-Week Classes
10/21/2019	Classes Begin for Second 8-Week Session
10/21/2019	Class Schedule Published for Spring Semester
10/22/2019	Deadline for Faculty Submission of First 8-Week Class Final Grades (due by 3pm)
10/23/2019	Deadline for Add, Drop, and Late Registration for Second 8-Week Classes
10/28/2019	Deadline to Drop Second 8-Week Classes with No Record
11/04/2019	Registration Opens for Spring Semester

11/08/2019	Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)
11/11/2019	Veteran's Day (University Closed)
11/28/2019	Thanksgiving (University Closed)
11/29/2019	Thanksgiving (University Closed)
11/29/2019	Deadline to Drop Second 8-Week Classes with a Quit (Q) or Withdraw (W)
12/13/2019	Deadline for Applications for Tuition Rebate for Fall Graduation (5pm)
12/13/2019	Deadline for Degree Conferral Applications to the Registrar's Office
12/13/2019	Deadline to Withdraw from University for 16- and Second 8-Week Classes
12/13/2019	Fall Semester Ends
12/13/2019	Fall Commencement Ceremony

TECHNOLOGY REQUIREMENTS AND SUPPORT

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

Technology Support

Canvas Support

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select “Chat with Canvas Support,” submit a support request through “Report a Problem,” or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

Other Technology Support

For log-in problems, students should contact Help Desk Central.

24 hours a day, seven days a week:

Email: helpdesk@tamu.edu

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [<http://hdc.tamu.edu>]

Please let the support technician know you are an A&M-Central Texas student.

For issues related to course content and requirements, contact Dr. Anitha Chennamaneni.

COURSE AND UNIVERSITY PROCEDURES AND POLICIES

Drop Policy

If you discover that you need to drop this class, you must complete a [Drop Request Form](https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf) [https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf].

Professors cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the Academic Calendar for which the form must be completed, signed and returned. Once you return the signed form to the Registrar's Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid the penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student's academic performance and includes, but is not limited to, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student's work, collusion, and the abuse of resource materials. All academic misconduct concerns will be reported to the university's Office of Student Conduct. Ignorance of the university's standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Office of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the university's programs, services, and activities. If you believe you have a disability requiring reasonable accommodations, please contact the Office of Access and Inclusion at (254) 501-5831. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion](https://tamuct.instructure.com/courses/717) Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Important information for Pregnant and/or Parenting Students.

Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit the [Student Affairs](https://www.tamuct.edu/student-affairs/index.html) web page [https://www.tamuct.edu/student-affairs/index.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines online](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf), please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender—including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.

Tutoring

Tutoring is available to all A&M-Central Texas students, both on-campus and online. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111. Tutor.com tutoring **will not** offer writing support beginning August 1, 2019 but will continue to offer other tutoring support.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or have any other question, contact Academic Support Programs at (254) 519-5796, or by emailing Dr. DeEadra Albert-Green at deeadra.albertgreen@tamuct.edu.

Chat live with a tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas. Access Tutor.com through Canvas.

The University Writing Center

Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University-Central Texas (TAMUCT) is a free workspace open to all TAMUCT students from 10:00 a.m.-5:00 p.m. Monday thru Thursday with satellite hours in the University Library Monday thru Thursday from 6:00-9:00 p.m. This semester, the UWC is also offering online-only hours from 12:00-3:00 p.m. on Saturdays.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and

writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available) or by making an appointment via [WOnline](https://tamuct.mywconline.com/) [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC and/or need any.

Library Services

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 85,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group workspaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](http://tamuct.libguides.com/index) [http://tamuct.libguides.com/index].

A Note about Sexual Violence at A&M – Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the [Title IX webpage](https://www.tamuct.edu/departments/compliance/titleix.php) [<https://www.tamuct.edu/departments/compliance/titleix.php>].

Behavioral Intervention

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, who are exhibiting behaviors that pose a threat to safety, or individuals causing a significant disruption to our community, please make a referral to the Behavioral Intervention Team. You can complete the referral online [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the [Behavioral Intervention Team](https://www.tamuct.edu/student-affairs/bat.html) website for more information [<https://www.tamuct.edu/student-affairs/bat.html>]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5800.

Instructor Policies

The instructor reserves the right to make changes to this syllabus during the course of the semester for the benefit of the students. Any changes that effect grades or grading will be made in writing.

Instructor reserves the right to supplement the material presented in the text with additional material including handouts, oral presentations, industry articles, videos, research paper readings, case studies, power point presentations etc. for the benefit of the students

All work is submitted through Canvas and due on the specified due date/time. Work turned in after due date is considered *late*. 5 points will be deducted for each day the assignment is late. Special circumstances need to be discussed with me ahead of time when possible. Missed assignments, projects, and examinations will receive a grade of zero.

Any work not submitted in the proper format is rejected and receives no credit.

Incidents of violations of academic integrity, such as plagiarism or turning in the work of others as your own work, will result in a cap on the maximum number of points that can be earned in this class. The cap will be 600 points resulting in a best case grade of "D" for the class. Students whose assignment contains plagiarized information i.e., failing to cite and reference the

information source in properly applying APA formatting to citations and references, copying and /or using content from unauthorized sources etc. will receive a 0 for the assignment and possibly a referral to Student Affairs.

At all times in the class, please observe proper rules of netiquette in your oral and written communication and conduct yourself in a professional manner

The Operation of the Online Course and Being an Online Student. Online learning requires students to be very self-disciplined and demands regular and consistent participation in the class. Please read the document posted on Canvas on what makes a successful online student. Be sure you understand and are prepared to comply with all required class assignments and deadlines. If you are not able to comply, for any reason, you must contact me immediately.

Copyright Notice.

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