# Course number, Course CRN, COURSE TITLE

CIS 3351-115, 60188, Data Structures

#### **Summer 2021**

Texas A&M University-Central Texas

# **COURSE DATES, MODALITY, AND LOCATION**

This is a 100% online course, and uses the A&M-Central Texas Canvas Learning Management System [https://tamuct.instructure.com/].

Dates: Jun 6 – Jul 29, 2022

#### INSTRUCTOR AND CONTACT INFORMATION

**Instructor:** Dr. Shuyang Gu

Office: FH 323J

Phone:

Email: s.gu@tamuct.edu

#### **Office Hours**

Monday and Wednesday from 1:30 PM – 3:30 PM.

You can always email me to schedule an appointment if you need any help and if my office hours don't work for you.

#### Student-instructor interaction

I check my email (s.gu@tamuct.edu) regularly. Please contact me if you would like to set up an appointment, and we can meet on Skype, over the phone, or any online tool.

#### **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 <u>911Cellular</u> [https://www.tamuct.edu/police/911cellular.html] 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**

Study theory and applications of commonly used computer data structures, files, file organization and access methods, databases, and other storage and retrieval methods. Prerequisite(s): CIS 3340or CIS 3341 or CIS 3342 or CIS 3343 or concurrent enrollment or permission of department chair.

#### **Student Learning Outcomes**

Following this course students will be able to:

- 1. Assess how the choice of data structures and algorithm design methods impacts the performance of programs.
- 2. Choose the appropriate data structure and algorithm design method for a specified application.
- 3. Write programs using object-oriented design principles.
- Solve problems using data structures such as linear lists, stacks, queues, hash tables, binary trees, heaps, binary search trees, and graphs and writing programs for these solutions.

# Required Reading and Textbook(s)

Book: "Data Structures & Algorithms" 2th ed LaFore

**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.

#### **COURSE REQUIREMENTS**

Course Requirements: (include point values for each- not just a percentage)

# A. Assignments (60 points)

You must submit all your assignments via the Canvas CIS 3351 website. You are required to submit a zipped copy of your complete programming assignment, which enables me to unzip and run your solution. Late work will not be accepted, however, I understand that things happen in life. That is to say, if you have a compelling/legitimate reason on why you missed a submission, please let me know and I will work something out with you.

#### **B. Exams**

You will have two exams: midterm and final. Each exam is worth 20% of your final grade. If you miss an exam, you will receive zero without any notification. However, if you have a compelling reason, please inform me and I will work something out with you.

# **Grading Criteria Rubric and Conversion**

Required Activity	Points	
Assignments	60	
Midterm	20	
Final	20	
Total	100	

Points Range	Letter Grade	
90-100	Α	
80-89	В	
70-79	С	
60-69	D	
0-59	F	

# **Posting of Grades**

- Assignments will be graded and posted on Canvas within two weeks or less
- All due dates are to be taken as midnight of the posted day
- Late submissions will receive zero, unless you talk to me and you have a legitimate reason.

#### **COURSE OUTLINE AND CALENDAR**

# **Complete Course Calendar**

Below is a tentative schedule and I reserve the right to change it

Week	Dates	Chapter	Assignment Due
Week 1	Jun 6 - Jun 12	Chapter 1, 2	Jun 13
Week 2	Jun 13 - Jun 19	Chapter 3, 4	Jun 20
Week 3	Jun 20 - Jun 26	Chapter 5, 6	Jun 27
Week 4	Jun 27 - Jul 4	Chapter 7	Jul 4
		Midterm	
Week 5	Jul 4 - Jul 10	Chapter 8, 9	Jul 11
Week 6	Jul 11 - Jul 17	Chapter 10, 11	Jul 18
Week 7	Jul 18 - Jul 24	Chapter 12, 13	Jul 25
Week 8	Jul 25 - Jul 29	Final Exam	

#### **Important University Dates**

https://www.tamuct.edu/registrar/academic-calendar.html

#### **TECHNOLOGY REQUIREMENTS AND SUPPORT**

#### **Technology Requirements**

This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.

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

#### **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.

# **Online Proctored Testing**

A&M-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. If the course requires identity verification or proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio also requires the Chrome web browser with their custom plug in.

# **Other Technology Support**

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

24 hours a day, 7 days a week

Email: <a href="mailto:helpdesk@tamu.edu">helpdesk@tamu.edu</a>
Phone: (254) 519-5466

Web Chat: [http://hdc.tamu.edu]

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

#### UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

#### **Drop Policy**

If you discover that you need to drop this class, you must complete the <u>Drop Request</u> Dynamic Form through Warrior Web.

[https://dynamicforms.ngwebsolutions.com/casAuthentication.ashx?InstID=eaed95b9-f2be-45f3-a37d-

46928168bc10&targetUrl=https%3A%2F%2Fdynamicforms.ngwebsolutions.com%2FSubmit%2FForm%2FStart%2F53b8369e-0502-4f36-be43-f02a4202f612].

Faculty 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. Once you submit the completed 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 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. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Office of Student Conduct. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more <u>information regarding the Student Conduct process</u>, [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may <u>submit a report</u>, [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout id=0].

#### **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, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information, please visit our <u>Access & Inclusion</u> 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 <u>Student Affairs</u> [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these <u>requirements and guidelines</u> online, 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, on a remote online basis. Visit the Academic Support Community in Canvas to view schedules and contact information. Subjects tutored on campus include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Student success coaching is available online upon request.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, success coaching, or have any other question, contact Academic Support Programs at (254) 501-5836, visit the Office of Student Success at 212F Warrior Hall, or by emailing studentsuccess@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 except writing support. Access Tutor.com through Canvas.

#### **University Writing Center**

University Writing Center: The University Writing Center (UWC) at Texas A&M University—Central Texas (TAMUCT) is a free service open to all TAMUCT students. For the Spring 2021 semester, all services will be online as a result of the COVID-19 pandemic. The hours of operation are from 10:00 a.m.-4:00 p.m. Monday thru Thursday with satellite hours Monday thru Thursday from 6:00-9:00 p.m. The UWC is also offering 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. 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. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. 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 making an appointment via <a href="WCOnline">WCOnline</a> [https://tamuct.mywconline.com/]. In addition, you can

email Dr. Bruce Bowles Jr. at <a href="mailto:bruce.bowles@tamuct.edu">bruce.bowles@tamuct.edu</a> if you have any questions about the UWC and/or need any assistance with scheduling.

# **University Library**

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 400,000 eBooks and 82,000 journals, in addition to the 96,000 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 virtually through WebEx, Microsoft Teams 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 work spaces, 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 <a href="Library website"><u>Library website</u></a> [http://tamuct.libguides.com/index].

# **OPTIONAL POLICY STATEMENTS**

#### 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 Wellness and 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 <a href="Title IX webpage">Title IX webpage</a> [https://www.tamuct.edu/compliance/titleix.html].

#### **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, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the <u>referral</u> online [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout\_id=2].

Anonymous referrals are accepted. Please see the <u>Behavioral Intervention Team</u> 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.

# **Copyright Notice**

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.