Remote / Online Course Syllabus – Summer 2021

Course Information

Course Number/Section	CS 3345, Section 0U2 (Monday/Wednesday 10:00am-12:15pm)
Course Title	Data Structures and Introduction to Algorithmic Analysis
Term	Summer 2021

Professor Contact Information

Professor	Greg Ozbirn
Office Phone	972-883-4725
Other Phone	NA
Email Address	ozbirn@utdallas.edu
Office Location	ECSS 3.608 (Use MS Teams this summer)
Online Office Hours	2pm-3pm, TR
Other Information	MS Teams

Course Modality and Expectations

Instructional Mode	Remote: Synchronous online learning at the day and time of the class. The instructor delivers the instruction from home or the office. Students complete the course at a distance.
Course Platform	MS Teams.
Expectations	You may attend the live session and ask questions during the lecture, or you may view a recording (viewing expected within 24 hours).
Asynchronous Learning Guidelines	You may choose an asynchronous mode at any time. In this case, you should view the recordings within 24 hours of the live session and finish assignments when due. For exams, you are expected to take them during class time unless you are in a distant time zone or have a similar issue. In this case, notify the instructor before the date of the exam. See this link for general information: Asynchronous Access for Summer 2021 FAQ

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Prerequisites: CE/CS/TE 2305 with a grade of C or better,
CE/CS/TE 2336 with a grade of C or better.

Prerequisite or co-requisite: CS/SE 3341 or ENGR 3341.

Course Description

Analysis of algorithms including time complexity and Big-O notation. Analysis of stacks, queues, and trees, including B-trees. Heaps, hashing, and advanced sorting techniques. Disjoint sets and graphs. Course emphasizes design and implementation.

Student Learning Objectives/Outcomes

Ability to use/analyze:

1) Asymptotic notations, recurrences, algorithm analysis
2) Lists, stacks, queues, hashing, priority queues
3) Binary search trees, Balanced binary search trees
4) Graphs, Depth-first search, Topological ordering
5) Breadth-first search, Dijkstra's algorithm
6) Algorithms of Prim and Kruskal, Disjoint-set Union-Find problem

Required Textbooks and Materials

Required Texts

Data Structures and Algorithm Analysis in Java, (Third Edition), by Mark Allen Weiss, Published by Addison-Wesley, 2011, ISBN-10: 0132576279, ISBN-13: 978-0132576277

Required Materials

NA

Suggested Course Materials

Suggested Readings/Texts

NA

Suggested Materials

Extra material may be posted on eLearning

Textbooks and some other bookstore materials can be ordered online or purchased at the UT Dallas Bookstore.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the eLearning website.

Please see the course access and navigation section of the Getting Started with eLearning webpage for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools.

Student emails will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources
Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.

Server Unavailability or Other Technical Difficulties
The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Academic Calendar

Class	Date	Material Covered	Topic
1,2	May 24, 26	Introduction, Chapter 1	Math Review,
3	May 31, 2	Holiday, Chapter 2	Algorithm Analysis
4,5	Jun 7, 9	Chapter 3	Lists/Stacks/Queues
6,7	Jun 14, 16	Chapter 4	Trees
8,9	Jun 21, 23	Chapter 5	Hash Tables
10,11	Jun 28, 30	Review, **Exam I**	
12,13	Jul 5, 7	Chapter 6	Priority Queues
14,15	Jul 12, 14	Chapter 7	Sorting
16,17	Jul 19, 21	Chapter 8, Chapter 9	Sets
18,19	Jul 26, 28	Chapter 9, Review	Graphs
20	Aug 4	**Exam II**	

Proctored Final Exam Procedures
This course will use Honorlock for exam proctoring. See Distance Learning Proctored Exams webpage for more information.

COVID-19 Guidelines and Resources

The information contained in the following link lists the University's COVID-19 resources for students and instructors of record.

Please see http://go.utdallas.edu/syllabus-policies.

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Grading Policy
Letter grades are determined using the standard 10-point range for each letter, then dividing this range into three equal parts to determine the +/- designation.

The following weights are used in determining the final score.

Exam 1	20%
Exam 2	20%
Assignment Average	30%
Project Average	30%

Course Policies
Make-up exams
Exams must be taken on time. Exceptions require advance approval by the instructor. It is up to the instructor to determine whether an exception will be made, and will depend largely on proof of extraordinary circumstances. Otherwise, a missed exam will either incur a substantial penalty or be recorded as a zero.

Extra Credit
The lowest assignment score and the lowest project score are dropped to account for mistakes in submission. No other bonus work, make-up work, dropped scores, or other means of raising your grade should be expected. At the end of the semester, it is possible that grades may be curved, but a curve should not be expected.

Late Work
Due dates will be followed by a 24-hour grace period to submit the work. This is helpful to those in another time zone. It is not intended as an extra day to work on the assignment. After the 24-hour period ends, the score is recorded as a zero, as ample time to submit has been provided.

Special Assignments
NA

Class Participation
If a student appears to have stopped participating, for example, no longer submitting assignments, the student will be reported to the department for follow-up.

Classroom Citizenship
All students are expected to conduct themselves appropriately in the course, including in the live lectures as well as in communication with the instructor and grader(s).

Comet Creed
This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

Academic Support Resources
The information contained in the following link lists the University's academic support resources for all students.

Please go to Academic Support Resources webpage for these policies.

UT Dallas Syllabus Policies and Procedures
The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the credit/no credit or pass/fail grading option and withdrawal from class.

Please go to UT Dallas Syllabus Policies webpage for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.