

# CS 5333 Syllabus

## Course Information

*Course Number/Section* CS 5333  
*Course Title* Discrete Structures  
*Term* Fall 2020

## Professor Contact Information

*Professor* Jorge A. Cobb  
*Office Phone* (972)883-2479  
*Email Address* [cobb@utdallas.edu](mailto:cobb@utdallas.edu)  
*Office Location* ECSS 4.208  
*Online Office Hours* Mondays 10 – 11 am, Wednesdays 7 – 8 pm  
*Office Hours Location* in blackboard collaborate in elearning.

## Grader Contact Information

*Name* Divyarsha Koduri  
*Email Address* [dxk190007@utdallas.edu](mailto:dxk190007@utdallas.edu)  
*Office Hours* Tue and Thu 3 – 4 pm on Microsoft Teams (email the TA for details on how to contact)

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## Course Modality and Expectations

<b>Instructional Mode</b>	Remote/Virtual
<b>Course Platform</b>	All instruction will be performed via elearning.utdallas.edu. Announcements, assignments, and class recordings will be posted on elearning. All meetings will take place in the blackboard collaborate tool inside elearning.
<b>Asynchronous Learning Guidelines</b>	Class recordings will be posted on elearning. Assignments announcements and uploading will also be done via elearning. Exams will be offered at various times of the day to facilitate asynchronous access. <a href="https://www.utdallas.edu/fall-2020/asynchronous-access-for-fall-2020/">https://www.utdallas.edu/fall-2020/asynchronous-access-for-fall-2020/</a>

## 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>.

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## Class Recordings

**The instructor will record all meetings of this course.** Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. 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 *Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments* except to implement an approved Office of Student AccessAbility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. 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](#).

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### **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](#).

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

### **General Course Information**

<b>Pre-requisites, Co-requisites, &amp; other restrictions</b>	Prerequisite: ENCS majors only
<b>Course Description</b>	<p><b>CS 5333 Discrete Structures</b> (3 semester hours) Mathematical foundations of computer science. Logic, sets, relations, graphs and algebraic structures. Combinatorics and metrics for performance evaluation of algorithms. (3-0) S</p> <p><b><i>This is a fundamental course for CS. Everything else you learn in CS will relate to this course. Treat this course very seriously!</i></b></p>
<b>Learning Outcomes</b>	<p><b>Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Ability to use the Boolean Algebra properties of set theory</li> <li>• Ability to construct valid proofs and recognize invalid ones, including proofs by induction</li> <li>• Ability to use inclusion-exclusion and more advanced methods of counting</li> <li>• Ability to set up and solve recurrence relations</li> <li>• Ability to use the Master Theorem as estimations of time complexity</li> <li>• Ability to understand and use basic properties of relations including equivalence relations and partial orders</li> <li>• Ability to understand and use basic properties of finite graphs</li> </ul>

<b>Required Texts &amp; Materials</b>	<i>Discrete Mathematics and Its Applications</i> , Kenneth H. Rosen, McGraw Hill, 7 <sup>th</sup> or 8 <sup>th</sup> edition. Textbooks can be ordered online or purchased at the UT Dallas Bookstore.
<b>Suggested Texts, Readings, &amp; Materials</b>	Course slides will be available on <a href="https://elearning.utdallas.edu">https://elearning.utdallas.edu</a>

### Assignments & Academic Calendar

The list of topics covered from the textbook and PowerPoint slides will be made available on elearning.

First homework and first exam will occur about 1/3 of the semester, similarly, the second homework and exam will occur after 2/3 of the semester, and of course the third homework towards the end of the semester.

Homeworks will be submitted via elearning. We accept Microsoft Word and Adobe PDF file formats. If you do a handwritten homework, please turn into a HIGH QUALITY PDF that is easy to read (a single PDF file, **no JPEGs/photos please**). There are several apps to do scanning with your phone. Find one that works for you! **Take a screenshot of the confirmation that your assignment was uploaded.** Otherwise I will not all accept claims that elearning “lost” your assignment.

Exams will be online on elearning and proctored using the HonorLock system (see further below). Exams may also involve a significant writing component, so you may have to scan several handwritten pages in addition to the exam in elearning.

Exam dates will be announced 1 ½ weeks in advance or thereabouts.

The final exam is given during the 3-hour slot indicated in the final exam schedule of the university (to be announced later). ***The final exam is not comprehensive.*** It only covers the last 1/3 of the course. ***Please do not make travel reservations to leave town on a date earlier than this date.*** The final exam will also be online.

Percentages: 3 home-works, 5% each, two exams, 25 % each, final exam, 35%..

***ALL work must be INDIVIDUAL WORK only. Cases of suspected cheating will be sent to the Judicial Affairs office.***

### Honor Lock System for Exams

This course will use [Honorlock](#) – an online exam proctoring tool. To successfully take an exam, you must have a **web camera with microphone**, a laptop or desktop computer (no tablets/phones), **Chrome browser**, a reliable internet connection and your photo ID. You will be prompted to install the Honorlock Chrome Extension (which you can remove after you finish the test). You will then access the exam within your eLearning course and go through the authentication process. The web camera will monitor you throughout test. Please see the [Testing Guidelines](#) and [Support Information](#) for additional information. You should also visit the [Distance Learning](#) web page for more information.

## **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**

*My main form of communication is via email.* If you have questions and you cannot attend office hours, please send me an email. Please write your question clearly and neatly; I cannot answer a question that is not clearly stated. I will monitor the discussions tool in eLearning periodically.

I only respond to emails that originate from a UT Dallas account. This is due to strict regulations of the University regarding privacy of student information.

Student emails and discussion board messages 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.

## **Course Policies**

### *Make-up exams*

None, unless under documented exceptional circumstances.

### *Extra Credit*

None

### *Late Work*

None, unless under documented exceptional circumstances

*Special Assignments*

None

**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 go to [UT Dallas Syllabus Policies](#) webpage for these policies.

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