

# STOR 215 – Fall 2022 – Syllabus

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## Introduction to Decision Sciences

### Instructor

Ms. Morgan Smith  
smithmor@email.unc.edu

### Course Overview

Introduction to basic concepts and techniques of discrete mathematics with applications to business and social and physical sciences. Topics include logic, sets, functions, combinatorics, discrete probability, graphs, and networks.

### Instructor's Office Location

Hanes B46

### Class Location & Time

Hanes 120

### Instructor's Office Hours

MWF 8:00am - 8:50am

**On Zoom:** Tuesdays 2:00pm - 3:00pm

Zoom link:

<https://unc.zoom.us/j/92193674902?pwd=S2FJT3dmbDVOMzNkS3NOa1RwbUNyQT09>

### Required Text

Discrete Mathematics: Course Notes, *Vidyadhar G. Kulkarni*

The text above will be freely available to you and will be posted on Sakai.

**In office:** Wednesdays  
8:50am - 10:00am

### Optional Text

Discrete Mathematics and Its Applications, *Kenneth H. Rosen*

### Instructional Assistant

Mr. Trung Nghia Nguyen  
nghiant@unc.edu

### Resources

This course for many of you will be your first introduction to rigorous proof techniques. This material can be hard to grasp at first. Thus, I suggest taking advantage of all available resources.

### IA's Office Location

Hanes B48

- Instructor's Office Hours

- IA's Office Hours

- Study Groups

### IA's Office Hours

- Required and optional texts

**In office:** Tuesdays &  
Thursdays 8:15am - 9:15am

## Grading

Assignment	Percentage	A	93 or above	C+	77 to 79.99
Homework	30%	A-	90 to 92.99	C	73 to 76.99
Midterm 1	15%	B+	87 to 89.99	C-	70 to 72.99
Midterm 2	15%	B	83 to 86.99	D+	67 to 69.99
Final Exam	30%	B-	80 to 82.99	D	60 to 66.99
Participation	10%			F	Below 60

## Tentative Exam Schedule

Exam	Date	Subjects
Midterm I	Monday, October 3rd	Chapters 1, 2, 3, & 4; Possibly chapters 6 & 7
Midterm II	Monday, November 7th	Chapters 8 & 9; Possibly chapters 6, 7, & 10
Final Exam	According to Final Exam Schedule	Cumulative

## Material that will be Covered

Chapter	Subject
Chapter 1	The Number System
Chapter 2	Logic and Deduction
Chapter 3	Sets, Functions, Sequences, & Sums
Chapter 4	Induction & Recursion
Chapter 6	Basic Principles of Counting
Chapter 7	Permutations and Combinations
Chapter 8	Further Topics in Counting
Chapter 9	Probability of Events
Chapter 10	Random Variables
Chapter 11	Graphs
Chapter 12 (Time permitting)	Weighted Graphs

## **Homework Policy**

Homework will be assigned weekly. Late assignments will be accepted up to 3 days past the deadline. All late work (whether a minute late or 3 days) will be subjected to a penalty of 50%. That is, a late assignment that would have received a 90% will now receive a 40%. The only exception is for university approved absences on the due date. I will extend the homework assignment for any many days that are excused by the university. All questions about homework grading should be brought to the attention of the IA.

I will drop your lowest 2 homework assignments.

All homework will be assigned and must be submitted through GradeScope.

You should be automatically added to our class GradeScope. However, if you are not, you can register for our class by using entry code: 8NNVGG

## **Exam Policy**

The tentative dates of all exams are posted above. Make-up midterm exams will only be allowed with a university approved absence. I must be made aware of this approval before the solutions of the exam are released which will be 24hrs after the exam is scheduled. If your absence does not satisfy these two things, I will allow you to replace the missing exam with your final exam grade. Similarly, for those who are not satisfied with their midterm grade (for whatever reason), I will allow your lowest midterm grade to be replaced by your final grade if this change improves your grade.

The university has a special policy for missing Final Exams. Questions about missing final exams should be brought up to the office of the Dean of Students.

I will allow an index-sized (front and back) cheat sheet on all exams. These must be handwritten.

## **Participation Policy**

Participation will be graded based on polls taken during class using PollEverywhere. Your grade will be simply calculated by:  $[\text{The number of polls you participated in}] \div [\text{The total number of polls}]$ .

I added many of you to our Poll Everywhere page. However, if you do not see our class, you can register for our class PollEverywhere by going to: <https://PollEv.com/morgansmith784/register>

## **Attendance Policy**

This course is classified as in-person meaning:

- Students will attend classes live in-person
- Students will take exams on specific dates/times in-person

No right or privilege exists that permits a student to be absent from any class meetings, even online classes, except for these university approved absences:

- Authorized university activities,

- Disability/religious observance/pregnancy, as required by law and approved by Accessibility Resources and Service and/or the Equal Opportunity and Compliance Office (EOC),
- Significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the Equal Opportunity and Compliance Office (EOC)\*.

## **Technology Use**

You are welcome to bring a calculator, laptop, and cellphone to class.

Technology can support student learning, but it can also become a distraction. You should not use laptops or other devices for entertainment during class and should not display any material on the laptop which may be distracting or offensive to your fellow students. Laptops should only be used for legitimate classroom purposes, such as coding, taking notes, or downloading class information from Sakai. E-mail, messaging, surfing the Internet, reading the news, or playing games are not considered legitimate classroom purposes. Such inappropriate use is distracting and is unprofessional.

## **Learning Cooperatively**

We encourage you to discuss course content with your friends and classmates as you are working on your weekly assignments. No matter what your academic background, you will learn more in this class if you work with others than if you do not. Ask questions, answer questions, and share ideas liberally.

## **Accessibility Resources**

UNC-Chapel Hill facilitates the implementation of reasonable accommodations for students with learning disabilities, physical disabilities, mental health struggles, chronic medical conditions, temporary disability, or pregnancy complications, all of which can impair student success. See the ARS website for contact and registration information: <https://ars.unc.edu/about-ars/contact-us>

## **Counseling and Psychological Services**

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

## **Title IX**

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison – [Adrienne.allison@unc.edu](mailto:Adrienne.allison@unc.edu)), Report and Response Coordinators in the Equal Opportunity and Compliance Office ([reportandresponse@unc.edu](mailto:reportandresponse@unc.edu)),

Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at [safe.unc.edu](https://safe.unc.edu).

### **Honor Code Statement**

Students are bound by the Honor Code in taking exams and in written work. The Honor Code of the University is always in effect, and the submission of work signifies understanding and acceptance of those requirements. Plagiarism will not be tolerated. Please consult with me if you have any questions about the Honor Code.

### **Legal**

I reserve the right to make changes to the syllabus, including all due dates. These changes will be announced as early as possible so that students can adjust their schedules.