

Math 3336 – 16921 (Fall 2020)

Discrete Mathematics and Its Applications

Course Instructor: Dr. Blerina Xhabli

Email: bxhabli@central.uh.edu

Course/Section Number: Math.3336/16921

Lecture Time/Place: MWF 10:00am – 11:00am / Online

Office Hours: Online TBA and/or by appointment

Course Homepage: www.casa.uh.edu and Math.3336 – Fall '20 TEAM

Course Prerequisites: Math.2331 or equivalent

Textbook

Discrete Mathematics and Its Applications, Eighth Edition, by Kenneth H. Rosen.

Course Description

This course covers elementary discrete mathematics for computer science: it is designed to prepare math, computer science, and engineering majors for a background in abstraction, notation, and critical thinking for the mathematics most directly related to computer science. It emphasizes mathematical definitions, logical inference, and proof techniques. Topics include propositional logic, first-order logic, proof methods; sets, functions, relations; mathematical induction, recursion; elementary number theory, graph theory; basic complexity theory, recurrences.

Course Homepage/CASA and TEAMS

The course homepage for this class are <http://www.casa.uh.edu> and Math.3336 – Fall '20 TEAM. You will be using CASA for submitting homeworks and taking exams. The homework assignments will be posted under the Assignments tab. The exams will be posted under the Monitored Exams tab. The exams will be monitored live. Math.3336 Fall'20 teams will be a virtual classroom, where our live lectures will take place and helpful lecture notes will be provided.

Resources For Online Learning

University of Houston is committed to student success, and provides information to optimize the online learning experience through our Power-On webpage. Please visit this webpage for a comprehensive set of resources, tools and tips including: obtaining access to the internet, AccessUH; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For assistance, contact UHOnline@uh.edu.

Technology Requirements

Computer and internet access is required for this course. For the current list of minimum technology requirements and resources, check the URL <http://www.uh.edu/online/tech/requirements> For more information, contact the office of Online & Special Programs at UHOnline@uh.edu or call 713-743-3327. In summary, students will need:

- a Functioning (updated) Computer (with microphone, speaker or earphones, and webcam)
 - Reliable Internet Connection
 - PDF viewer/Ability to watch mp4 files.
 - Ability to log in to CASA for online assignments.
 - Ability to access Microsoft TEAMS platform.
- Note that all UH students have access to MS teams with their cougarID.

Course Delivery Format for Synchronous Online Courses:

This course is taught synchronously, which means there will be live lecture sessions on the designated day and time assigned to the course as posted on PeopleSoft. Synchronous instruction generally imitates face to face instruction but on a virtual classroom. There is no face-to-face component to this course The instructor provides course materials such as lecture notes and other important content, schedules the online live lecture sessions and delivers the live lecture on the provided day and time.

Every live lecture session will be recorded and a student will be able to access this video through the MS Team and/or CASA. Every student is automatically put on the MS Team of this course.

This course is not self-paced; students are expected to follow assignment due dates as specified on CASA calendar. After every live lecture, we recommend working on the provided homework assignments. If you can't attend the live lecture session, make sure you watch the recorded video. The best approach is to watch the missed lecture video before the next upcoming live lecture session. **Attendance is not mandatory but is recommended.**

- Live Lecture Sessions will take place on MS TEAMS; more information about this team can be found on your CASA calendar. Make sure you are a member of this team.
- Students are expected to behave professionally during live sessions. Any students who do not follow the university's code of conduct might be removed from the session.
- Turn off your webcam and microphone before joining the live session.
- By joining a live session, students give consent to be recorded on the live session video.

Grading

The final grade for this class will be determined as follows:

Homework:	15%
Exam I:	20%
Exam II:	20%
Exam III:	20%
Final Exam:	25%

Homework

A list of homework problems will be given every week on the course homepage at CASA. Homework will be due on Wednesdays. **Late homework is not permitted.** Expect to spend approximately three hours working on homework outside of class for every hour spent in class. If you have any issues with the way the homework or a particular problem is graded, please contact me. Your turned-in homework grade will be based on the following guidelines:

- Homework will not be accepted by email.
- Write legibly and neatly. Provide space for the grader to make comments.
- Your homework should be scanned in a single pdf file, and be submitted online through your CASA accounts. The detailed instructions for homework submission are posted on your CASA accounts mainpage.
- Solutions to homework problems should be written in sequential order.
- You may discuss the problems with other classmates as you figure out how to do the problem or establish its truth, but the write-up should be done by you alone and in your own words.
- Homework is due every Wednesday, at 11:59pm. Once the deadline has passed, the homework is considered late and will not be accepted.
- Your lowest two homework grades throughout the term will be dropped when calculating your final grade.

Reading Assignments and Class Participation

Reading assignments will be given weekly on the course homepage (CASA or Math.3336 Team). Completing the reading assignments is just as critical as doing the written homework. You should read the assigned sections *before* we cover them in classes, so you are prepared to answer questions or ask about material you do not understand.

Class participation is very important for being successful in this course. It is strongly recommended to attend every live session and pay attention and be engaged in the lectures. Questions on exams will be similar to assigned homework problems and examples from lectures presented in class. If you have to miss a live session for an excused absence (See: Excused Absence Policy below), then you can watch the recorded live lecture as soon as possible.

Tutoring

The Math Department is offering online tutoring for 3000-level and 4000-level courses through the Mathematics Undergraduate Student Lounge (MUSL) microsoft team. The Math Department has set up a schedule for tutoring of different courses throughout the semester by qualified math majors tutors and graduate students. You will be added in such a team, and our class grader will notify his schedule very soon.

Exam Dates

There will be three exams and one final. All the exams will be delivered and monitored online using CASA Monitor tool. More information and instructions about how to take an online exam will be posted in your CASA accounts.

Exam 1 (§1.1–§2.4)	Friday, September 25, 10:00am – 11:00am
Exam 2 (§3.1–§5.3)	Friday, October 23, 10:00am – 11:00am
Exam 3 (§6.1–§8.2)	Friday, November 20, 10:00am – 11:00am
Final Exam (cumulative)	Wednesday, December 16, 11:00am – 2:00pm

Books and notes will not be allowed on all exams.

Final Exam

Final is comprehensive and mandatory for ALL students. Check course website for final exam schedule. Make your travel plans so that you are available during the testing period.

If you miss a test without a valid excuse as described below, you receive a zero for it. When you take the final, the grade on the final will replace that zero. If you miss more than one test, only one of them will be replaced. If the final exam grade is better than any of the previous test grades, then the final exam grade will automatically replace the lowest test grade even if you do not miss any test. The primary reason for this policy is to offset the impact of zero scores due to emergencies (medical, personal, or otherwise) on a student's final course grade.

Late Assignments and Make-Up Policy

This course is a cumulative course. You as a student need to keep up with the reading, homework assignments and exams. Students are expected to check the calendar on CASA several times a week and plan ahead so that they don't miss assignments. We drop two homework assignments primarily to offset the impact of zero/low scores due to emergencies on a student's final course grade. Hence, students should not expect to have an option to make up missed assignments unless in the case of an excused absence (See: Excused Absence Policy below).

If requesting make up work (assignment or exam) due to an excused absence: the student needs to contact the instructor in writing before the next class meeting (or as soon as possible afterwards with an explanation regarding why the notice could not be sent before the next class meeting). Read the Undergraduate Excused Absence Policy to see a list of documentations to support your request; follow the guidelines provided on this document to make your request. Your instructor will inform you of the decision in writing (via email).

Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergraduate Excused Absence Policy for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

Religious Holy Days: Students whose religious beliefs prohibit class attendance or completion of specific assignments on designated dates may obtain an excused absence. To do so, please make a written request for an excused absence and submit it to your instructor as soon as possible, to allow the instructor to make arrangements. For more information, see the Student Handbook. <http://catalog.uh.edu/index.php>

Interim Undergraduate Grading Policy

Due to the unique and unprecedented challenges associated with the COVID-19 pandemic, the University of Houston has implemented an Interim Undergraduate Grade Policy for undergraduate grades which applies to all undergraduate students in courses offered in all sessions during fall 2020. Under this policy, students have the option of converting final assigned letter grades to S (Satisfactory, applicable to any letter grade from A to D-) or NCR (No Credit Reported COVID-19, applicable to grades of F) on their transcripts. Please visit FAQs for additional information.

Recording of Class

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Center for Students with DisABILITIES. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

Syllabus Changes

Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible on CASA or in class.

Communication Via Email

Email communications related to this course will be sent to your Exchange Email Account which each University of Houston student receives. The Exchange mail server can be accessed via Outlook, which provides a single location for organizing and managing day-to-day information, from email and calendars to contacts and task lists. Exchange email accounts can be accessed by logging into Office 365 with your Cougarnet credentials or through Access UH. They can also be configured on IOS and Android mobile devices. Additional assistance can be found at the Get Help page.

Your instructor will be sending class emails using PeopleSoft; you are responsible for checking your UH email. Per UH Policy, notices properly addressed and so sent via PeopleSoft shall be presumed to have been received by the student. Thus, you are responsible for the content in emails sent to your UH account, regardless if your external (non-UH) email provider filters or blocks them. When emailing your instructor, it is recommended that you use a professional email address and include the course name on the subject line so that your instructor can address your questions accordingly. Please read this link for more on communication via email: [EMAIL ETIQUETTE](#)

Any emails sent to the instructor should have Math 3336, Section 16921 in the subject line. Also, if the instructor does not respond to your email within two working days, please resend the email. If you again do not hear from me within one more working day, it is likely that your email is not coming through and you should mention this in one of the online sessions before or after class. It is your responsibility to ensure that I am aware of issues you may have with the course; failure to effectively initiate timely communication is not a valid basis for a grade grievance and cannot be used as such.

Any emails sent by the instructor will be sent through AccessUH so please make sure your email is up to date in the system. Class announcements will also be posted on the CASA calendar or the discussion board on Math.3336 Fall'20 TEAM, so check those pages daily.

Honor Principle

University of Houston students are expected to adhere to the Academic Honesty Policy as described in the UH Undergraduate Catalog. "Academic dishonesty" means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at the University of Houston or by a course instructor to fulfill any and all academic requirements. Academic dishonesty includes, but is not limited to, the following: Plagiarism; Cheating and Unauthorized Group Work; Fabrication, Falsification, and Misrepresentation; Stealing and Abuse of Academic Materials; Complicity in Academic Dishonesty; Academic Misconduct.

Refer to UH Academic Honesty website and the UH Student Catalog for the definition of these terms and university's policy on Academic Dishonesty. Anyone caught cheating will receive sanctions as explained on these documents and will be reported to the department for further disciplinary action. The sanctions for confirmed violations of this policy shall be commensurate with the nature of the offense and with the record of the student regarding any previous infractions. Sanctions may include, but are not limited to: a lowered grade, failure on the examination or assignment in question, failure in the course, probation, suspension, or expulsion from the University of Houston, or a combination of these. Students may not receive a W for courses in which they have been found in violation of the Academic Honesty Policy. If a W is received prior to a finding of policy violation,

the student will become liable for the Academic Honesty penalty, including F grades.

Posting answers for Homework questions online (at group chats or other online tools) **is considered an academic honesty violation**. Students are expected to know the difference between “getting/giving HELP on a problem” and “getting/giving answers to a problem”. If a student is caught sharing answers (in person or online), he/she might be reported to the departmental hearing officer for an academic honesty violation. If a student becomes aware of cheating or any other violations; that student is responsible for informing the instructor.

Incompletes

An incomplete (I) may be awarded to you by your teacher if the reason is a compelling NON-ACADEMIC reason, you have completed virtually all the course assignments AND you have a passing grade on this work.

Incompletes are NOT available to students who have done little of the coursework nor for students who have failing grades on what they have done. See your teacher to discuss eligibility and to fill out and sign the Incomplete contract. This is also required and must be signed in advance of an I being posted. Imminent failure is not an acceptable reason to be awarded an incomplete.

Dropping/Withdrawing

If a student wants to drop the class, it is his/her responsibility to do so by logging on access.uh.edu and completing the drop process before the drop deadline. Instructors cannot drop students for any reason.

UH CAPS Statement

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (<http://www.uh.edu/caps>) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. No appointment is necessary for the “Let’s Talk” program, a drop-in consultation service at convenient locations and hours around campus. http://www.uh.edu/caps/outreach/lets_talk.html

CSD Accommodations

The University of Houston System complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students who have a disability. In accordance with Section 504 and ADA guidelines, University of Houston strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please visit The Center for Students with DisABILITIES (CSD) website at <http://www.uh.edu/csd/> for more information.

Academic Adjustments/Auxiliary Aids: The University of Houston System complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students who have a disabili-

ity. In accordance with Section 504 and ADA guidelines, University of Houston strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please visit The Center for Students with DisABILITIES (CSD) website at <http://www.uh.edu/csd/> for more information.

Accommodation Forms: Students seeking academic adjustments/auxiliary aids must, in a timely manner (usually at the beginning of the semester), provide their instructor with an approved current Student Accommodation Form (paper copy or online version, as appropriate) before an approved accommodation can be implemented.

Details of this policy, and the corresponding responsibilities of the student are outlined in The Student Academic Adjustments/Auxiliary Aids Policy (01.D.09) document under (STEP 4: Student Submission (5.4.1 & 5.4.2), Page 6). For more information please visit the Center for Students with Disabilities FAQs page.

Additionally, if a student is requesting a (CSD approved) testing accommodation, then the student will also complete a Request for Individualized Testing Accommodations (RITA) paper form to arrange for tests to be administered at the CSD office. CSD suggests that the student meet with their instructor during office hours and/or make an appointment to complete the RITA form to ensure confidentiality.

Note: RITA forms must be completed at least 48 hours in advance of the original test date. Please consult your counselor ahead of time to ensure that your tests are scheduled in a timely manner. Please keep in mind that if you run over the agreed upon time limit for your exam, you will be penalized in proportion to the amount of extra time taken.

HELPFUL INFORMATION

COVID-19 UPDATES: <https://uh.edu/covid-19/>

COOGS CARE: <https://www.uh.edu/dsaes/coogscare/>

LAPTOP CHECKOUT REQUESTS:

<https://www.uh.edu/infotech/about/planning/offcampus/index.php#do-you-need-a-laptop>

HEALTH FAQs: <https://uh.edu/covid-19/faq/health-wellness-prevention-faqs/>

STUDENT HEALTH CENTER:

<https://uh.edu/class/english/lcc/current-students/student-healthcenter/index.php>

Schedule

The following is a tentative schedule which might be updated throughout the semester. Mostly we will cover three to four sections per week.

Table 1: **Tentative Calendar for Math.3336 – Fall 2020**

	Monday	Wednesday	Friday
Week 1	Introduction	§1.2	§1.3
8/24-8/28	§1.1	§1.3	§1.4
Week 2	§1.4	§1.5	§1.6
8/31-9/04	§1.5	§1.6	§1.7
Week 3	Labor Day	§1.7	§1.8
9/7-9/11	No class	§1.8	§2.1
Week 4	§2.1	§2.2	§2.3
9/14-9/18	§2.2	§2.3	§2.4
Week 5	§2.5	Review I	Exam I (§1.1 – §2.4)
9/21-9/25			
Week 6	§3.1	§3.2	§4.1
9/28-10/2	§3.2	§4.1	§4.2*
Week 7	§4.3		
10/5-10/9	§4.4	§4.4	§5.1
Week 8	§5.1	§5.2	
10/12-10/16	§5.2	§5.3	§5.3
Week 9	§6.1	Review II	Exam II (§3.1 – §5.3)
10/19-10/23	§6.2		
Week 10	§6.3	§6.4	§6.5
10/26-10/30	§6.4	§6.5	§8.5*
Week 11	§7.1	§7.2	§7.3
11/2-11/6	§7.2	§7.3	§7.4
Week 12			§8.2
11/9-11/13	§8.1	§8.2	§8.3*
Week 13	§9.1	Review III	Exam III (§6.1 – §8.2)
11/16-11/20	§9.3		
Week 14	§9.3	Thanksgiving	Holiday
11/23-11/27	§9.5		
Week 15	§9.5	§9.6	Final Review
11/30-12/04	§9.6		
Week 16	Final Review (continued)		
12/2-12/6			
Final Exam	Wednesday,	December 16,	11:00am – 2:00pm