

COURSE SYLLABUS

YEAR COURSE OFFERED: 2020

SEMESTER COURSE OFFERED: Fall

DEPARTMENT: MATH

COURSE NUMBER: 1313 – 16347

NAME OF COURSE: Finite Math

NAME OF INSTRUCTOR: Deepjyoti Ghosh

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 via email and announcements on MS Teams.

INSTRUCTOR INFORMATION

Office Hours: TBD (follow Teams and CASA page for update)
Email: dghosh4@uh.edu , deepgh@math.uh.edu

COURSE LEARNING MATERIAL

You do not need to purchase a physical textbook for Math 1313. The textbook, online quizzes, EMCF assignments, and additional help materials will be made available by logging into CourseWare at <http://www.casa.uh.edu>. These first portion of these materials are freely available for a temporary period of time. All students must purchase a Course Access Code and enter it on CourseWare by the access code deadline (given on CASA) to continue accessing the course learning materials. A Course Access Code can be purchased from UH Book Store. *Plan the timing of your purchase; no make ups for the assignments missed during “no access” period if you receive the code late.*

You may use the online calculator on your CASA account or a non-graphing/nonprogrammable scientific calculator. The recommended calculator is TI-30XIIS.

LEARNING OBJECTIVES

Upon successful completion of this course, students will be able to solve systems of linear equations and inequalities in a variety of ways. They will apply these skills to mathematical descriptions of real-world scenarios and will be able to communicate their conclusions. They will be able to apply algebraic methods in solving problems in business and financial mathematics. They will understand and be able to use various counting techniques and will apply them to elementary problems in probability. They will learn elementary methods of descriptive and inferential statistics and will appreciate the role of statistics in thinking critically about other areas

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of knowledge.

TECHNICAL EQUIPMENT

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

For the current list of minimum technology requirements and resources, copy/paste/navigate to the URL <http://www.uh.edu/online/tech/requirements>. For further help look over the following URL <https://www.uh.edu/online/students/remote-learning/index>

Webcam - Access to a webcam is required for students participating remotely in this course. Webcams must be turned on during exams to ensure the academic integrity of exam administration. Further instructions will be posted on your CASA account.

MAJOR ASSIGNMENTS/EXAMINATIONS

Test 1(online) - 4%
Tests 2, 3, 4 - 15% each
Final exam - 24%
Online Quizzes - 12%
Homework – 10%
Poppers – 5%

GRADING SCALE

A	$x > 93$	B-	$80 \leq x < 83$	D+	$67 \leq x < 70$
A-	$90 \leq x < 93$	C+	$77 \leq x < 80$	D	$63 \leq x < 67$
B+	$87 \leq x < 90$	C	$73 \leq x < 77$	D-	$60 \leq x < 63$
B	$83 \leq x < 87$	C-	$70 \leq x < 73$	F	Below

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.

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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.

INSTRUCTIONS FOR POPPERS

Online Live Session: Monday, Wednesday and Friday; 12:00 PM – 01:00 PM. Video recordings will be posted on the course webpage. There will be participation questions (poppers) in each lecture. The grade is determined by summing all points earned for a given week. **Students who cannot attend an online live meeting will need to complete the questions given in the lecture video/notes by 24 hours. Students get the questions by reviewing the posted video. NOTE: Students are responsible for any content and announcements given in the live sessions.**

The total number of popper questions for the course will be counted, 85% of the total number of questions will be the 100%. For example, *if* there are 5 questions each class for 24 classes, which is 120 questions. Your grade will be calculated out of $120(.85) = 102$ points.

INSTRUCTIONS FOR QUIZZES/PRACTICE EXAMS

The assignments are located in the CASA CourseWare course website under the “Online Assignments” tab. The online assignments will close on the due dates given on CourseWare at 11:59 pm and **will not** re-open. You must first take the Course Policy Quiz and earn a 100 before any other online becomes available. One of the online quizzes will be dropped.

Practice exams will be used as extra credit, 2% of your highest attempt.

You have **20 times** to take each online assignment.

There is a 75 minute time limit for each quiz and 90 minutes for the practice exams.

The following table shows what sections each quiz covers.

Quiz	Sections Covered	Quiz	Sections Covered
Quiz 1	1.5, 2.1, 2.2	Quiz 9	6.1, 6.2
Quiz 2	3.1, 3.2	Quiz 10	6.3, 6.4
Quiz 3	3.3, 3.4, 3.5	Quiz 11	6.4
Quiz 4	4.1, 4.2, 4.3	Quiz 12	6.5
Quiz 5	Ch 4 Mix, 5.1	Quiz 13	6.5, 6.6
Quiz 6	5.2	Quiz 14	7.1, 7.2, 7.3, 7.4
Quiz 7	5.3, 5.4	Quiz 15	7.4, 7.5, 7.6
Quiz 8	5.4		

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MAKE-UP/INCOMPLETE POLICY

This course is a cumulative course. You as a student need to keep up with the reading, homework assignments and exams. If the absence is deemed excused by the University's approval list, arrangements may be possible.

Incomplete policy: A notation of "incomplete" may be given in lieu of a final grade to a student who has carried a subject successfully until the end of a semester but who, because of illness or other unusual and substantiated cause beyond the student's control, has been unable to take or complete the final examination or to complete some limited amount of term work.

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](#) and [Graduate 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](#).

EXAM INFORMATION

Test 1: Covers pre-requisite materials and will be **Aug 30 – Sept 5**.

Test 2: Covers chapters 1, 2 and through section 3.2 will be **Sept 18 - 19**.

Test 3: Covers sections 3.3 through chapter 4 will be **Oct 9 - 10**.

Test 4: Covers Chapters 5 and 6 will be **Nov 13 - 14**.

The tests will be online through the CASA Monitor system.

The exams will consist of a variety of different type of questions.

The exam will be available during the time period listed above. Exam dates will also be posted on your CASA calendar.

FINAL EXAM(mandatory)

A **comprehensive final exam** will be given in CASA.

The final will include chapters 1 through 7.

You can access the scheduler for this exam by logging into Courseware.

Dates: **Dec. 9 – 10(pending approval)**

COMMUNICATION/EMAIL

Communication from student to instructor, outside of class, will be addressed to the student via their UH email. Notices sent shall be presumed to have been received by the student. Thus, the student is responsible for the content in emails sent to his/her UH account, regardless if his/her external (non-UH) email provider filters or blocks them. Emails lost to external providers shall not be used as a justification to claim faculty are unresponsive/not communicating in any way.

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Communication from student to instructor, outside of class, should be in the following format. Students should put their course number, Math 1313 in the subject line. There should be a proper greeting and addressing of the instructor. Followed by a *brief* description of the request in the email. Only vital information to the request should be included. Finally ending with your name and Peoplesoft ID. Messages not following this format may be overlooked or identified as junk mail.

ACADEMIC HONESTY

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 <https://www.uh.edu/provost/policies/honesty/documents-honesty/academic-honesty-policy.pdf> and the UH Student Catalog for the definition of these terms and university’s policy on Academic Dishonesty.

Anyone caught cheating will be reported for further disciplinary actions, receive sanctions as explained on these documents, and will have an academic dishonesty record at the Provosts office. 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 to assignments or questions relating to an exam online (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.

TUTORING OPTIONS AVAILABLE:

For help with any pre-requisite materials, you can log on to your CASA account , then choose MATH PLACEMENT from your course listing and then choose Help Videos
CASA <https://uh.edu/casa/tutoring-center/hours/>
LAUNCH <http://www.uh.edu/ussc/launch/>

STUDENT DISABILITY ACCOMMODATIONS AND SERVICES

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](#)

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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 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.

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.

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 (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

MORE 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/off-campus/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-health-center/index.php>

LIST OF DISCUSSION/TOPICS

Chapter 1 Linear Equations

- 1.1 Slope and Equations of Lines
- 1.2 Graphs of Linear Equations
- 1.3 Systems of Linear Equations
- 1.4 Graphs of Linear Inequalities
- 1.5 Linear Models

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Chapter 2 Solving Equations and Inequalities

- 2.1 Solving Linear Programming Problems
- 2.2 Applications of Linear Programming

Chapter 3 Matrices

- 3.1 Matrices
- 3.2 Solving Systems of Linear Equations
- 3.3 Matrix Operations
- 3.4 Matrix Multiplication
- 3.5 The Inverse of a Matrix

Chapter 4 Math of Finance

- 4.1 Simple Interest and Compound Interest: Future and Present Value
- 4.2 Annuities: Future Value and Present Value
- 4.3 Sinking Funds and Amortizations

Chapter 5 Sets and Counting Techniques

- 5.1 Sets and Venn Diagrams
- 5.2 The Number of Elements in a Set
- 5.3 The Multiplication Principle
- 5.4 Permutations and Combinations

Chapter 6 Probability

- 6.1 Experiments, Events and Sample Spaces
- 6.2 Introduction to Probability
- 6.3 Rules of Probability
- 6.4 Using Counting Techniques in Probability
- 6.5 Conditional Probability
- 6.6 Bayes Theorem

Chapter 7 Random Variables, Probability Distribution and Statistics

- 7.1 Random Variable
- 7.2 Expected Value and Odds
- 7.3 Variance and Standard Deviation
- 7.4 The Binomial Distribution
- 7.5 The Normal Distribution
- 7.6 Applications