

COURSE SYLLABUS

YEAR COURSE OFFERED: 2018 - 2019

SEMESTER COURSE OFFERED: Spring(Winter Mini)

DEPARTMENT: MATH

COURSE NUMBER: 1313 – 6775

NAME OF COURSE: Finite Math

NAME OF INSTRUCTOR: Moses Sosa

The information contained in this class syllabus is subject to change without notice. Students are to be aware of any additional course policies presented by the instructor during the course.

Remote students, those that live more than 100 miles from the UH campus, need to schedule remote administration of exam(s) and the final. **It is the student's responsibility to find a university or testing center that will administer their exam.** More information for remote testing can be found here:

<http://www.uh.edu/online/students/proctoring-students.php>

Students must provide their own non-graphing calculator, non-programmable nor finance calculator. TI30XS works well or anything comparable to it.

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 of knowledge.

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.

ACADEMIC HONESTY

University of Houston students are expected to adhere to the Academic Honesty Policy as described in the UH

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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 receive sanctions as explained on these documents and will be reported to the department and Dean of Students Office for further disciplinary action. 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

MAJOR ASSIGNMENTS/EXAMINATIONS

- Test 1(online) - 5%
- Test 2(Midterm) - 35% each
- Final exam - 45%
- Online Quizzes - 15%

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 60 |

INSTRUCTIONS FOR QUIZZES

- The quizzes are located in the CASA CourseWare course website under the “Online Assignments” tab.
- The quizzes will close on the due dates given on CourseWare at 11:59 pm and will not re-open.
- One quiz will be dropped.
- You have 20 times to take each quiz.
- There is a 75-minute time limit for each quiz.
- 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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DISCUSSION BOARD PARTICIPATION

- There is a class discussion board located on CourseWare at <http://www.casa.uh.edu>.
- All general questions should be posted on there. That should be your source of solutions if it is not found on the CASA page or syllabus. General questions should not be emailed to your instructor.
- See https://www.math.uh.edu/~bekki/Math1431and1432_usingCASA.pdf for instructions on using the discussion board.

LATE ASSIGNMENT, MAKE-UP AND INCOMPLETE POLICIES

- This course is a cumulative course. You as a student need to keep up with the reading, online assignments and exams. Thus, late work or make-ups will not be accepted.
- 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. However 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.

EXAM INFORMATION

Test 1: Covers pre-requisite materials and will be online on the CASA website **December 17- 22.**

Test 2(Midterm): Covers chapters 1 through 4 and will be in the classroom designated on CASA, **January 3 at 1 pm.**

- The exams given will consist of both multiple choice and written questions.
- The multiple-choice questions will be either right or wrong, so no partial credit will be awarded.
- The written questions (free response) will be graded by the instructors and teaching assistants.
- There will be a practice test on Courseware for each exam. 10% of your practice test score will be added to your exam score as bonus.

FINAL EXAM

- A **comprehensive final exam** will be given in the classroom designated on CASA.
- The final will include chapters 1 through 7.
- Dates: **January 11 at 1 pm.**
- If you are using a remote location schedule your exam for **January 10**, to get the exam in time for grading.

Required Reading

- Course webpage: <http://www.casa.uh.edu>
- The textbook, online quizzes, and additional help materials will be made available by logging into CourseWare at <http://www.casa.uh.edu> . The first portion of these materials are freely available for a brief amount of time. All students must purchase a Course Access Code and enter it on CourseWare. The deadline is posted on CASA. A Course Access Code must be purchased from the CASA website(<https://www.casa.uh.edu/bnpg>).

List of discussion/lecture topics

Chapter 1 Linear Equations

- 1.1 Slope and Equations of Lines
- 1.2 Graphs of Linear Equations
- 1.3 Systems of Linear Equations

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- 1.4 Graphs of Linear Inequalities
- 1.5 Linear Models

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

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

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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.

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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 if the exam is graded.

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