

Math 1313: Finite Math Course Syllabus

Section number: 12573

Delivery format: Online lecture

Prerequisites: Credit for or placement out of math 1310. Students with prior credit of MATH 2331 or INDE 2331 will not receive credit for this course. May not apply to a major or minor in Mathematics.

Textbook: Available in electronic form (PDF) through CASA for all enrolled students.

The information contained in this class outline is an abbreviated description of the course. Additional important information is contained in the departmental policies statement at <http://www.math.uh.edu/~dog/13xxPolicies.doc> and at your instructor's personal webpage. You are responsible for knowing all of this information.

Online Course items that are not the same as the face-to-face as the format:

Remote students, those that live more than 100 miles from the UH campus, need to email their instructor regarding remote administration of exam 2 - 4 and the final. It will be the student's responsibility to find a university or testing center that will administer the exam. More information for remote testing can be found here:

<http://www.uh.edu/distance/student-resources/proctoring/>.

Distance and CSD students must provide their own non-graphing calculator. TI30XS works well. The online calculator is not available outside of a CASA testing facility. There will be two online lecture sessions every week. The completed notes and links to videos and/or extra examples will be posted for each section covered. **YOU ARE REQUIRED TO ATTEND BOTH OF THE LECTURE SESSIONS.** Each session has a popper. Popper A for a week is for session 1 and Popper B is for session 2. Attendance will be taken through the session chat log and participation in the EMCF questions (see below). EMCF questions are electronic multiple choice questions that you will answer online on www.casa.uh.edu. Please see online.math.uh.edu/courses for session times. No popper forms are needed from the bookstore for the online class.

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.

A student in this class is expected to complete the following assignments:

- 1 1 Online Exam (prerequisite)
- 2 3 Regular Exams
- 3 Final Exam
- 4 Online Quizzes – about one per week.
- 5 Homework – on each section of the textbook covered in class
- 6 Poppers – in-class quizzes given daily.

Grading

Online Exam: 8%

Regular Exams: 42% (14% each)

Final Exam: 18%

Online Quizzes: 12%

Daily Classroom Quizzes (Poppers): 10%

Homework: 10%

Total: 100%

The learning materials for Math 1313, including the textbook, are found online on the CourseWare site at www.casa.uh.edu. Students are required to purchase an access code at the Book Store to access the learning materials.

Math 1313 Finite Math – Topics List

Linear Equations

- Slope and Equations of Lines
- Graphs of Linear Equations
- Systems of Linear Equations
- Graphs of Linear Inequalities
- Linear Models

Solving Equations and Inequalities

- Solving Linear Programming Problems
- Applications of Linear Programming

Matrices

- Matrices
- Solving Systems of Linear Equations
- Matrix Operations
- Matrix Multiplication
- The Inverse of a Matrix

Math of Finance

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

Sets and Counting Techniques

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

Probability

- Experiments, Events and Sample Spaces
- Introduction to Probability
- Rules of Probability
- Using Counting Techniques in Probability
- Conditional Probability
- Bayes Theorem

Random Variables, Probability Distribution and Statistics

- Random Variable
- Expected Value and Odds
- Variance and Standard Deviation
- The Binomial Distribution
- The Normal Distribution
- Applications

Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.