

Math 1313: Finite Math Course Syllabus

Section number: 23944

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 problem sessions every week. The problem session is not mandatory and will be mainly used as online office hours. The completed notes and links to videos and/or extra examples will be posted for each section covered.

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

Grading

Online Exam: 8%

Regular Exams: 54% (18% each)

Final Exam: 22%

Online Quizzes: 16%

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.