

## MATH 0400

### Schedule

Below is an approximate schedule for lectures. References refer to sections in the textbook. Any changes will be announced in class.

#### August 29, 31:

1.1 The Cartesian Coordinate System

Homework: 9, 11, 16, 17, 22, 25, 30, 36, 37, 41

1.2 Straight Lines

Homework: 1, 2, 3, 5, 11, 13, 15, 21-26, 27, 33, 41, 47

1.3 Linear Functions and Mathematical Models

Homework: 6, 10, 11, 13, 17, 20, 23, 37

1.4 Intersection of Straight Lines

Homework: 3, 7, 11, 21, 25

#### September 12, 14:

2.1 Systems of Linear Equations: An Introduction

Homework: 1, 3, 7, 13, 15, 21

2.2 Systems of Linear Equations: Unique Solutions

Homework: 3, 5, 9, 15, 23, 29, 33, 45, 59

2.3 Undetermined and Overdetermined Systems

Homework: 1, 5, 13, 21, 37

#### September 19, 21:

2.4 Matrices

Homework: 1, 3, 5, 10, 15, 21, 33, 35

2.5 Multiplication of Matrices

Homework: 1, 3, 7, 13, 17, 27, 31, 37

#### September 26, 28:

2.6 The Inverse of a Square Matrix

Homework: 1, 5, 9, 19, 27

A.1 Propositions and Connectives

Homework: 1-10, 15-18, 21-24, 27, 29

A.2 Truth Tables

Homework: 1, 2, 6, 9, 12

A.3 The Conditional and Biconditional Connectives

Homework: 1, 2, 6, 7, 10, 11, 15, 20, 26

#### October 3, 5:

A.4 Laws of Logic

Homework: 1, 3, 4, 8, 9, 10, 16, 22

A.5 Arguments

Homework: 3, 6, 9, 10, 18, 19

5.1 Compound Interest

Homework: 1, 4, 7, 11, 12, 21, 22, 25, 31, 35, 50

**October 10, 12:**

5.2 Annuities

Homework: 1, 2, 9, 12, 15, 20

5.3 Amortization and Sinking Funds

Homework: 1, 3, 4, 9, 11, 12, 17, 28, 32

Review

**October 17, 19:**

Midterm Exam 1

5.4 Arithmetic and Geometric Progressions

Homework: 3, 5, 8, 11, 19, 25, 29, 31, 34

6.1 Sets and Set Operations

Homework: 1, 3, 9, 11, 15, 18, 21, 26, 27, 31, 35, 37, 41

**October 24, 26:**

6.2 The Number of Elements in a Finite Set

Homework: 1, 4, 5, 8, 9, 11, 15, 21, 24

6.3 The Multiplication Principle

Homework: 1, 5, 7, 11, 12, 16

6.4 Permutations and Combinations

Homework: 3, 5, 9, 11, 14, 20, 23, 27, 36, 43, 64

**October 31, November 2:**

7.1 Experiments, Sample Spaces, and Events

Homework: 1, 4, 9, 11, 14, 15, 18, 21, 23, 26, 29

7.2 Definition of Probability

Homework: 1, 3, 5, 9, 15, 19, 27, 28, 31

7.3 Rules of Probability

Homework: 1, 5, 11, 17, 21, 25, 27, 37, 43

**November 7, 9:**

7.4 Use of Counting Techniques in Probability

Homework: 1, 3, 7, 9, 13, 21, 25, 42

7.5 Conditional Probability and Independent Events

Homework: 1, 3, 7, 9, 11, 13, 19, 31, 36

7.6 Bayes' Theorem

Homework: 1, 3, 7, 9, 11, 13, 21, 29, 32

**November 14, 16:**

8.1 Distribution of Random Variables

Homework: 1, 2, 5, 7, 15, 19, 23, 25

8.2 Expected Value

Homework: 1, 2, 3, 5, 11, 17, 20, 31, 33, 35, 36, 42

Review

**November 28, 30:**

Midterm Exam 2

8.3 Variance and Standard Deviation

Homework: 1, 3, 6, 7, 9, 13, 16, 17, 27

8.4 The Binomial Distribution

Homework: 1, 4, 5, 7, 8, 11, 15, 19, 25, 36

**December 5, 7:**

8.5 The Normal Distribution

Homework: 1, 2, 3, 5, 7, 9, 12, 15, 16, 17, 19

8.6 Applications of the Normal Distribution

Homework: 1, 3, 5, 12, 13, 16

9.1 Markov Chains

Homework: 1, 3, 4, 11, 15, 19, 22