

LSU Dual Enrollment Program for Math

Finite Math COURSE PROFILE 12-10-2025

LA BOARD OF REGENTS COMMON COURSE NUMBER: CMAT 1313 w/o Matrices

ETEXT: *Thinking Mathematically, 8e, MyLab Math*, Robert Blitzer

HIGH SCHOOL COURSE CODE: N/A

CHAPTERS

- 1 – Problem Solving and Critical Thinking
- 7 – Algebra: Graphs, Functions, and Linear Systems
- 8 – Personal Finance
- 11 – Counting Methods and Probability Theory
- 12 – Statistics

The number in parentheses indicates the number of homework exercises on that topic in MyLab Math.

Chapter 1: Problem Solving and Critical Thinking

Section 1.1 Inductive and Deductive Reasoning (14)

- Find a counterexample
- Use inductive reasoning to identify a pattern
- Use deductive reasoning to prove a conjecture

Chapter 7: Algebra: Graphs, Functions, and Linear Systems

Section 7.1 Introduction to the Rectangular Coordinate System (19)

- Plot points in the rectangular coordinate system
- Graph equations in the rectangular coordinate system

Section 7.2 Graphing Linear Equations (17)

- Use intercepts to graph a linear equation
- Graph horizontal lines
- Graph vertical lines

Section 7.3 Solving Systems of Linear Equations (32)

- Determine whether an ordered pair is a solution of a linear system
- Solve linear systems by graphing
- Solve linear systems by the substitution method
- Solve linear systems by the addition method

Section 7.4 Graphing Systems of Linear Inequalities (24)

- Graph a linear inequality in two variables
- Graph a system of linear inequalities

Section 7.5 Linear Programming (16)

- Use graphs to determine the maximum and minimum of an objective function
- Use linear programming to solve application problems

Chapter 8: Personal Finance

Section 8.1 Percent, Sales Tax, and Discounts (20)

- Express a fraction as a percent
- Express a decimal as a percent
- Express a percent as a decimal
- Use the percent formula $A = PB$ to find the unknown

Section 8.3 Simple Interest (16)

- Calculate simple interest
- Use the future value formula to calculate the value of an unknown
- Solve applications involving simple interest

Section 8.4 Compound Interest (20)

- Use compound interest formula to calculate the value of an unknown
- Calculate present value using compound interest
- Find effective annual yield
- Compare investments using different interest rates and compounding periods

Section 8.5 Annuities, Methods of Saving, and Investments (9)

- Determine the value of an annuity
- Determine regular annuity payments needed to achieve a financial goal

Chapter 11: Counting Methods and Probability Theory

Section 11.1 The Fundamental Counting Principle (27)

- Use the Fundamental Counting Principle to find the number of possible outcomes
- Understand concepts involving the Fundamental Counting Principle

Section 11.2 Permutations (35)

- Use the Fundamental Counting Principle to count permutations
- Evaluate factorial expressions
- Use the permutations formula
- Find the number of permutations of duplicate items
- Understand concepts involving permutations

Section 11.3 Combinations (27)

- Distinguish between permutation and combination problems
- Use the combinations or permutations formula to evaluate expressions
- Solve problems involving combinations
- Use combinations, permutations, or the Fundamental Counting Principle to solve problems
- Understand concepts involving combinations

Section 11.4 Fundamentals of Probability (46)

- Compute theoretical probability
- Compute empirical probability
- Understand concepts involving fundamentals of probability

Section 11.5 Probability with the Fundamental Counting Principle, Permutations and Combinations (23)

- Compute probabilities with permutations
- Compute probabilities with combinations
- Understand concepts involving probability

Section 11.6 Events Involving Not and Or; Odds (50)

- Find the probability that an event will not occur
- Find the probability of one event or a second event occurring
- Solve conceptual problems involving probability
- Understand and use odds

Section 11.7 Events Involving And; Conditional Probability (44)

- Find the probability of one event and a second event occurring
- Compute conditional probabilities
- Understand concepts involving conditional probability

Section 11.8 Expected Value (12)

- Compute the expected value
- Use expected value to solve applied problems
- Use expected value to determine the average payoff or loss in a game of chance

Chapter 12: Statistics

Section 12.1 Collecting Data and Organizing Data (33)

- Select an appropriate sampling technique
- Understand and interpret data
- Organize and present data
- Apply estimation techniques to information given by graphs
- Identify deceptions in visual displays of data
- Understand concepts involving sampling, frequency distributions, and graphs

Section 12.2 Measures of Central Tendency (45)

- Determine the mean for a data set
- Determine the median for a data set
- Determine the mode for a data set
- Determine the midrange for a data set
- Interpret graphs, tables, and stem-and-leaf plots to be able to find the mean, median, mode and midrange
- Understand concepts involving measures of central tendency

Section 12.3 Measures of Dispersion (32)

- Determine the range for a data set
- Find the mean, deviation from the mean, and sum of deviations
- Determine the standard deviation for a data set
- Understand concepts involving mean, range, and standard deviation

Section 12.4 The Normal Distribution (44)

- Find scores at a specified standard deviation from the mean

Use the 68–95–99.7 Rule

Convert a data item to a z -score

Solve applied problems involving normal distributions

Understand concepts involving the normal distribution

Section 12.5 Percentiles and z-Scores (19)

Understand percentiles and quartiles

Solve applied problems involving normal distribution