Instructor: Thomas Johnson, M.S. – Assistant Professor of Mathematics

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Office Hours in Plainview, TX:

Online course – Available daily but at random times. I will respond to email ASAP.

Course Description: Intended for Non-STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered.
This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

Prerequisite: Minimum score of 350 on the TSIA, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 0337.
Credit: 3   **Lecture:** 3   **L**ab: 0

Textbook:

Kirk, D.; *Contemporary Mathematics*; openstax.org; Rice University; Houston, TX; Digital Version ISBN-13: 978-1-951693-68-8.

Core Curriculum Objectives Addressed:

1. Communication Skills: to include effective written, oral and visual communication.
2. Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
3. Empirical and Quantitative Competency Skills: to manipulate and analyze numerical data or observable facts resulting in informed conclusions.

Student Learning Outcomes:

Upon successful (passing) completion of this course, the student will be able to:

1. Apply the language and notation of sets.
2. Determine the validity of an argument or statement and provide mathematical evidence.
3. Solving problems involving the mathematics of finance.
4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
5. Interpret and analyze various representations of data.
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

Student Learning Outcomes Assessment: A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester.

Course Evaluation: Homework (65% of overall grade). Midterm Exam (15% of overall grade). Final Exam (20% of overall grade).

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning**.** Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

A. Plagiarism violations include, but are not limited to, the following:

   1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill.

   2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;

   3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or

   4. Missing in-text citations.

B. Cheating violations include, but are not limited to, the following:

   1. Obtaining an examination by stealing or collusion.

   2. Discovering the content of an examination before it is given.

3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment.

4. Entering an office or building to obtain an unfair advantage.

5. Taking an examination for another.

6. Altering grade records.

7. Copying another's work during an examination or on a homework assignment.

8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's work.

9. Taking pictures of a test, test answers, or someone else's paper.

Nondiscrimination Policy: South Plains College does not discriminate based on race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806716-2360.

Title IX Pregnancy Accommodations Statement: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodation to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodation. Contact the Director of Health and Wellness at 806-716-2362 or email cgilster@southplainscollege.edu for assistance.

Campus Concealed Carry: Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: http://www.southplainscollege.edu/campuscarry.php

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

I. Summer Week 1; June 2 – 6, 2025.

Assignment 01:

1.	1.1 Basic Set Concepts	odds 1 – 49.
2.	1.2 Subsets	odds 1 – 39.
3.	1.3 Understanding Venn Diagrams	odds 1 – 45.

Assignment 02:

1.	3.4 Rational Numbers	odds 1 – 45, 51, 55, 59, 65.
2.	3.5 Irrational Numbers	odds 1 – 41.
3.	3.9 Scientific Notation	odds 1 – 53.

Assignment 03:

1.	5.2 Linear Equations in One Variable with Applications	odds 1 – 35.
2.	5.4 Ratios and Proportions	odds 1 – 35.
3.	5.5 Graphing Linear Equations and Inequalities	evens 2 – 44.

II. Summer Week 2; June 9 – 13, 2025.

Assignment 04:

1.	5.6 Quadratic Equations with Two Variables with Applications	evens 2 – 40.
2.	5.7 Functions	evens 2 – 32.
3.	5.8 Graphing Functions	evens 2 – 44, 49 – 52, 57 – 60.
4.	5.9 Systems of Linear Equations in Two Variables	evens 2 – 42.

Assignment 05:

1.	6.3 Simple Interest	odds 1 – 51.
2.	6.4 Compound Interest	1 – 8, evens 10 – 16, 31, 35, 40.

Assignment 06:

1.	6.7 Investments	all 1 – 11.
2.	6.11 Buying or Leasing a Car	all 19 – 26.

Summer Mid-term Exam   opens June 16, 2025;   due June 20, 2025

III. Summer Week 3; June 16 – 20, 2025.

Assignment 07:

1.	7.1 The Multiplication Rule for Counting	all 1 – 11.
2.	7.2 Permutations	evens 2 – 22.
3.	7.3 Combinations	evens 2 – 34.

Assignment 08:

1. [7.5 Basic Concepts of Probability](#)   evens 2 – 30.
2. [7.6 Probability with Permutations and Combinations](#)   evens 2 – 30.
3. [7.7 What Are the Odds?](#)   odds 1 – 35.

Assignment 09:

1. [7.8 The Addition Rule for Probability](#)   odds 1 – 35.
2. [7.9 Conditional Probability and the Multiplication Rule](#)   evens 2 – 38.
3. [7.11 Expected Value](#)   every other even 2, 6, 10…34.

IV. Summer Week 4; June 23 – 27, 2025.

Assignment 10:

1. [8.1 Gathering and Organizing Data](#)   odds 1 – 21.
2. [8.2 Visualizing Data](#)   every other even, 2, 6, 10…30.
3. [8.3 Mean, Median and Mode](#)   evens 2 – 38.

Assignment 11:

1. [10.3 Triangles](#)   evens 2 – 18.
2. [10.4 Polygons, Perimeter, and Circumference](#)   evens 2 – 14.
3. [10.6 Area](#)   evens 2 – 26.

Assignment 12:

1. [10.7 Volume and Surface Area](#)   odds 1 – 17.
2. [10.8 Right Triangle Trigonometry](#)   evens 2 – 20.

A Review will be made available June 27, 2025.

Finals Week: June 30, 2025, to July 3, 2025.

       Final Exam opens July 3, 2025;   Due July 3, 2025.