

South Plains College
Department of Mathematics & Engineering
Math 0337 Foundations of Mathematical Reasoning
MW 5:20-6:55
Course Syllabus – Spring 2019

Instructor Gina Becker, BSE, M Ed
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Office 223B

Office Hours

Monday*	Tuesday*	Wednesday*	Thursday*	Friday*
10:15 – 11:00 4:15 – 5:20	10:45 – 11:00 12:45 – 1:00 2:45 – 3:00	10:15 – 11:00 4:15 - 5:20	10:45 – 11:00 12:45 – 1:00 2:45 – 3:00	8:30 – 11:30 <i>*or by appointment</i>

Textbook

Not required

Supplies

Pencils, paper, straightedge, and graph paper. **Only a basic non-graphing calculator (such as a TI-30) will be allowed in class.** Graphing calculators and calculators on cell phones or other electronic devices will **NOT** be allowed during tests or in-class assignments. Calculators may not be allowed on certain assignments and/or portions of exams.

Course Description and Purpose

This is a literacy-based course designed to provide students with the skills and conceptual understanding to succeed in a college-level statistics (Math1342) or quantitative literacy course (Math1332). This course includes applications of fundamental algebra, geometry, and statistics. **This developmental math course is NOT designed for those students who need to take Math 1314 or Math 1324 as part of their degree plan.** Students with undeclared majors should take Math 0315 or Math 0320, depending on their placement score. This course carries institutional credit but will not transfer and will not satisfy graduation requirements.

Student Learning Outcomes/Competencies

Successful completion of this course should reflect mastery of the following objectives:

1. Numeracy

Students will develop number sense and the ability to apply concepts of numeracy to investigate and describe quantitative relationships and solve real-world problems in a variety of contexts.

2. Proportional Reasoning

Students will use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.

3. Algebraic Competence, Reasoning, and Modeling

Students will transition from specific and numeric to general and abstract reasoning using the language and structure of algebra to investigate, represent, and solve problems.

4. Assessing Risk (Probabilistic Reasoning)

Students will understand and critically evaluate statements involving risk and arguments based on probability that appear in the popular media, especially in presenting medical information.

5. **Personal Finance**

Students will understand, interpret and make decisions based on financial information that is commonly presented to consumers.

6. **Civic Life**

Students will understand that quantitative information presented in the media and by other entities can sometimes be useful and sometimes be misleading.

Learning Goals

This course is a quantitative reasoning course. This means you will learn to use, understand, and communicate about quantitative information. This course has 5 goals:

1. **Communication goal**

Interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.

2. **Problem solving goal**

Make sense of problems, develop strategies to find solutions, and persevere in solving them.

3. **Reasoning goal**

Reason, model, and make decisions with mathematical, statistical, and quantitative information.

4. **Evaluation goal**

Critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.

5. **Technology goal**

Use appropriate technology in a given context.

Completion Requirements

Students need to pass with a C or better to become TSI-compliant in mathematics and to be allowed to enroll in Contemporary Mathematics (MATH1332) or Statistical Methods (MATH1342). **This course does NOT prepare the student to take College Algebra (MATH1314) or Math for Business Majors (MATH1324).**

Course Requirements

To achieve success in this class, a student should attend all class meetings, take notes and participate in class, and complete all homework assignments and examinations, including the final examination.

Attendance Policy

Your attendance and active participation is vital to your success in this class. Attendance will be taken at the beginning of each class meeting. Should you arrive after attendance has been taken you will be marked as tardy for that class. Leaving class for extended periods of time during class or leaving class early will result in a tardy. Two tardies will be considered as one absence. If you exceed 4 absences during the course of the semester, you may be dropped from this course with a grade of X or F.

Course Expectations

Attend class, be on time, do homework, and be prepared to participate. Turn off and put away all electronic devices when you enter the classroom and keep off for the duration of the class.

Assignments and Grading

Homework and Quizzes

Homework assignments will be given daily. Work the problems on lined notebook paper. Write

the problem, show all work and clearly identify your answer. **Late homework will not be accepted and no points will be given.** Homework assignments will be due each Wednesday and will be worth 1 point. Quizzes will be given weekly on non-exam weeks and no makeup quizzes will be offered. Each quiz is worth 1 point. Missing a quiz will result in 0 points for that quiz.

Exams

Your course grade will include four unit exams. Each exam will be worth 15 points. You will be able to correct one exam. Corrections will add 50% of their point value to your grade. The final comprehensive exam will be worth 20 points. Your final exam grade will take the place of your lowest exam grade, if it is a higher score and you have fewer than 3 zeroes.

Your final point value will determine your letter grade for this class and will be determined by the following scale:

A - 90-100
B - 80-89
C - 70-79

D - 60-69
F - 0-59

Tutoring

Students may obtain free tutoring in Building 2 at the Reese Center. Tutoring schedules will be posted on campus. Please remember to sign in when you seek the help of a tutor.

Equal Opportunity

South Plains College does not discriminate on the basis of 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 806-716-2360.

Disabilities

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) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Diversity

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.

Classroom Civility

Students are expected to be respectful of their fellow classmates and maintain a classroom environment that is conducive to learning. Turn off all cell phones and other electronic devices before entering the room. The instructor reserves the right to ask a student to leave if his/her

cell phone is left on and disrupts the class. Refrain from using offensive language, reading newspapers, chewing tobacco products, or otherwise being disruptive in class. Food and/or drinks are NOT allowed in the classroom.

Academic Honesty

Students are expected to uphold the ideas of academic honesty. Academic dishonesty includes, but is not limited to, cheating on tests, collaborating with another student during a test, copying another student's work, using materials not authorized, and plagiarism. Students who do not follow the academic honesty policy will receive a grade of zero for the assignment, and may be dropped from the course with an F, or face possible suspension from the college. *Math apps, smart phones, smart watches and graphing calculators are not allowed in this class.*

Title IX Pregnancy Accommodations

If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations 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 accommodations. Contact Crystal Gilster, 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, please refer to the SPC policy at:

(http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.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.

Tentative Course Schedule

Week	Monday		Wednesday	
1	January 14	1 Addition/Subtraction of Integers	January 16	2 Multiplication/Division of Integers and Fractions
2	January 21	MLK Holiday	January 23	3 Addition/Subtraction of Fractions
3	January 28	4 Order of Operations	January 30	5 Solving Linear Equations
4	February 4	6 Monomials Scientific Notation	February 6	Exam 1
5	February 11	7 Addition/Subtraction/ Multiplication of Polynomials	February 13	8 Factoring
6	February 18	9 Graphing	February 20	10 Slope
7	February 25	11 Systems of Equations	February 27	12 Applications Systems of Equations
8	March 4	13 Radicals	March 6	Exam 2
	March 11	Spring Break	March 13	Spring Break
9	March 18	14 Solving Quadratic Equations Pythagorean Theorem and Application	March 20	15 Units of Measurements and Conversions
10	March 25	16 Perimeter	March 27	17 Area
11	April 1	18 Volume	April 3	Exam 3
12	April 8	19 Percentages	April 10	20 Statistics
13	April 15	21 Measures of Central Tendency	April 17	22 Measures of Variation
14	April 22	Easter Break	April 24	23 Finance
15	April 29	Exam 4	May 1	Review
16	May 6 Final Exam	5:30 – 7:30		