South Plains College

Math 0401 – Foundations of Mathematical Reasoning – Spring 2017
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Instructor Information: Jacqueline Fowler   RC 268 E (Reese Campus Building 2)
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Course Description: This course is designed to prepare students for Contemporary Mathematics (MATH 1332) or Statistical Methods (Math 1342). This course DOES NOT prepare students for College Algebra (MATH 1314) or Math for Business Majors (MATH 1324). This course carries institutional credit but will not transfer and will not be used to meet degree requirements. Prerequisite: MATH 0310 or placement by testing, EDUC 1300.

Required Materials/Supplies: pencils, erasers, highlighters, notebook paper, four 3-ring binders, spiral, basic calculator

Course Topics: numeracy with an emphasis on estimation and fluency with large numbers; evaluating expressions and formulas; ratios, rates, proportions; percentages; solving equations; linear and exponential models; data interpretations including graphs and tables; verbal, algebraic and graphical representations of functions

Learning Outcomes
- **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.
- **Proportional Reasoning**: Students will use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.
- **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.
- **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.
- **Personal Finance**: Students will understand, interpret and make decisions based on financial information that is commonly presented to consumers.
- **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. The course has five goals:

- **Communication goal**: You will interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.
- **Problem solving goal**: You will make sense of problems, develop strategies to find solutions, and persevere in solving them.
- **Reasoning goal**: You will reason, model and make decisions with mathematical, statistical, and quantitative information.
- **Evaluation goal**: You will critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.
- **Technology goal**: You will use appropriate technology in a given context.

ADA Policy: 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, visit the Disability Services Office at Reese in building 8, or call 806-16-4675.

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability, or age.

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.

Blackboard: Blackboard is an online course management system that SPC uses for course information. For technical support, call 806-716-2180 or email blackboard@southplainscollege.edu.

Attendance Policy: Attendance and effort are the most important activities for success in this course. If you are absent, it is your responsibility to see a classmate to get the assignment and notes. I will not teach the lesson to individual students because of an absence. Work assigned during your absence and due at the next class is due for you as well. **If you have 4 consecutive or 6 cumulative absences, you may be dropped from this class and receive an X or F at my discretion.**

Academic Integrity: It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. Please refer to the SPC Student Guide under "Student Misconduct" and "Academic Integrity" regarding consequences for cheating and plagiarism.

Communication: I will respond to all emails within 48 hours. After Thursday, the response time will be longer over the weekend. Sign your name to the bottom of EVERY email, do not use text language in your emails, and do not use ALL CAPS.

Participation grades: Two participation grades will be dropped at the end of the semester.
        Homework: Homework will be turned in every Wednesday from the previous week, and will not be accepted late. If you are absent when homework is due, you will receive a zero.
        Activities: There will be activities periodically in class.   If you are absent on any day an activity grade is taken, you will receive a zero.

Tests: Dates for tests are located in the outline. If you are absent on the day a test is given, you will receive a zero for that test. **There are no make-up tests.** Tests are not dropped at the end of the semester.

Final Exam: There will be a comprehensive final exam at the end of the semester. If you have an A average, or if you miss no more than two absences, you may be exempt from the final exam.

Grading Scale and Policy:

Participation	20%	A:	90 – 100
Test 1	15%	B:	80 – 89
Test 2	15%	C:	70 – 79
Test 3	15%	D:	60 – 69
Test 4	15%	F:	0 – 59
Final Exam	20%		