South Plains College
Math 0401 – Foundations of Mathematical Reasoning (4:3:2)
Course Syllabus
Spring 2018

Instructor: Diane Eagle
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Office Hours:

Monday	Tuesday	Wednesday	Thursday	Friday
3:45 – 4:45	1:00 to 2:30	3:45 – 4:45	1:00 to 2:30	9:00 – 12:00

Pre- or Co-requisite: EDUC1300

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. No textbook is required for Math0401.

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 Math1314 or Math1324 as part of their degree plan.** Students with undeclared majors should take Math0315 or Math0320, depending on their placement score. This course carries institutional credit but will not transfer and will not satisfy graduation requirements.

Learning Outcomes:

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 **both** EDUC1300 and MATH0401 with a C or better to become TSI-compliant in mathematics. Only upon successful completion of **both classes** will the student 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 Evaluation: Your final grade will be determined by the average of four major tests (400 points) the comprehensive final exam (100 points) and daily lab and homework assignments (100 points.) The lowest grade of the four tests will be dropped, provided the student completed the course and took the final exam. The final exam is NOT eligible to be dropped. There are 500 points possible. **A minimum grade of 70 is needed to successfully pass this course.** The number of points earned will follow the grading scale below:

Grading Scale:

	A	90 to 100	448 to 500 points
	B	80 to 89	398 to 447 points
	C	70 to 79	348 to 397 points
	D	60 to 69	298 to 347 points
	F	Below 60	0 to 297 points

***NOTE: I do NOT issue the grade of "PR" for this class under any circumstances.

Exams: Exams are tentatively scheduled for February 12, March 7, April 4, and April 30. The comprehensive final exam will be from 5:30 pm to 7:30 pm on May 7. **There are NO makeup tests!** If you miss one of the 4 major tests, you may qualify to have that missing grade dropped at the end of the semester (see requirements above.) A student with an average of 90 or higher on the 4 major tests may be exempt from the final exam.

Lab Assignments: A 5-point lab assignment will accompany each day's lesson. Lab assignments are due by the end of class or, occasionally, at the beginning of the next class. All steps/work must be shown and the answer clearly indicated to receive credit. Do not submit "answer sheets." Daily lab grades comprise 20% of your overall average. **There is no makeup for lab assignments and a grade of zero will be assigned.**

Tutoring: Students can obtain free tutoring in room M116 in the math building on the South Plains Campus in Levelland or 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 in each of these places.

Class expectations: Students are expected to participate as a learning community by being prepared for class, engaging in group activities, joining class discussions, communicating their understanding of mathematics, and explaining their work to others. If you are absent, it is your responsibility to obtain any handouts/assignments from Blackboard and go over the material that was missed so you can be prepared for the next class. **Absolutely NO late work will be accepted.**

Bonus Points: Occasionally, tests will include a bonus problem, or a bonus problem may be assigned to complete outside of class. Opportunities for extra points are sometimes posted on Blackboard as well. Additional lab assignments may also be collected to supplement points earned. Bonus points add into the cumulative points earned.

Attendance Policy: Attendance will be taken every class period. Students who arrive late, leave early, sleep during class, or fail to sign the attendance sheet may be counted absent. Whenever absences become excessive and, in the instructor's opinion, minimum course objectives cannot be met due to absences, the student will be withdrawn from the course. **Any student who misses 3 consecutive classes or exceeds 5 absences throughout the semester will be administratively dropped and receive a grade of X or F.** Students wishing to drop this class must see the registrar by Thursday, April 26, 2018 to officially withdraw and receive a grade of W.

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 classroom. 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, talking loudly or off-topic, working on outside assignments, 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. **Use of a graphing calculator, cell phone, or other electronic device during any in-class assignment or exam will result in a grade of zero.** Leaving the classroom during an exam will not be permitted. 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.

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

Campus Concealed Carry: South Plains College permits the lawful carry of concealed handguns in accordance with Texas state law, and Texas Senate Bill 11. Individuals possessing a valid License to Carry permit, or the formerly issued Concealed Handgun License, may carry a concealed handgun at all campus locations except for the following: Natatorium. For a complete list of campus carry exclusion zones by event, please visit http://www.southplainscollege.edu/campuscarry.php

MATH 0401.001– SPRING 2018

Week	Monday			Wednesday	
1	Jan. 15	**Martin Luther King Day**	Jan. 17	Syllabus Addition and subtraction of integers	
2	Jan. 22	Multiplication and division of integers and fractions	Jan. 24	Addition and subtraction of fractions	
3	Jan. 29	Order of operations	Jan. 31	Solving linear equations	
4	Feb. 5	Direct translation application problems	Feb. 7	Rectangular coordinate system and slope	
5	Feb. 12	**TEST 1**	Feb. 14	Graphing linear equations	
6	Feb. 19	Systems of linear equations	Feb. 21	Operations with monomials	
7	Feb. 26	Operations with polynomials	Feb. 28	Radicals	
8	Mar. 5	Solving quadratic equations	Mar. 7	**TEST 2**	
		Spring Break			
9	Mar. 19	Metric system and conversions	Mar. 21	Geometry basics	
10	Mar. 26	Area	Mar. 28	Volume	
11	Apr. 2	**Easter**	Apr. 4	**TEST 3**	
12	Apr. 9	Pythagorean theorem	Apr. 11	Percentages and applications	
13	Apr. 16	Statistical concepts	Apr. 18	Graphs	
14	Apr. 23	Probability	Apr. 25	Simple and Compound Interest	
15	Apr. 30	**TEST 4**	May 2	**REVIEW**	
16	May 7	**FINAL EXAM 5:30 – 7:30 pm**	May 9	**NO CLASS**	

Last day to drop is Thursday, April 26, 2018