

**THE UNIVERSITY OF TEXAS AT EL PASO**  
**COLLEGE OF SCIENCE**  
DEPARTMENT OF MATHEMATICAL SCIENCES

- Course Number:** MATH 3308 - 11229
- Course Title:** Proportion & Algebraic Reasoning I
- Credit Hrs:** 3
- Term:** Fall 2021
- Course Meetings & Location:** TR 4:30 pm – 5:50 pm  
Zoom
- Prerequisite Courses:** MATH 2303 with a grade “C” or better
- Instructor:** Jeremy Ramirez
- Office Location:** Library 515 or ONLINE
- Contact Info:** E-mail Address: jramirez3@utep.edu
- Office Hours:** After class or by appointment.
- Textbook(s), Materials:** Required: Mathematics for Elementary Teachers with Activities (5<sup>th</sup> Ed)  
By Sybilla Beckmann  
**OPTIONAL:** MyMathLab code: **ramirez00655**
- Course Description:** This course focuses on proportional and algebraic reasoning for prospective elementary teachers. Topics include ratios as measures, ratios as multiplicative comparisons, proportions, rates of change, patterns, linear functions and solving linear equations, inequalities and systems. The focus is on identifying relationships between quantities in contextualized problems, using inductive reasoning to identify patterns and express them algebraically making connections among verbal, graphic, numeric and symbolic representations, solving problems, using concrete numeric, tabular, graphic and algebraic methods, and addressing student's misconceptions and errors.
- Course Objectives:** Students will
- (a) deepen their understanding of ratios, proportions, change, and functions by explaining why and making connections;
  - (b) strengthen their quantitative reasoning and algebraic reasoning;
  - (c) conceive mathematics as a problem-solving endeavor that involves sense-making and thinking; and
  - (d) develop the habits of attending to meaning, of analyzing problem situations, and of making conjectures and providing justifications.
- Course Activities/Assignments:** Course activities will include classroom activities/discussions, homework assignments, quizzes, midterm exams and a comprehensive final exam.
- Assessment of Course Objectives:** All class activities and homework assignments will be assessed for completeness and correctness. All exams will be assessed for correctness.

<b>Course Schedule:</b>	Weeks	Sections	Topic
	1 – 3	6.4 – 6.6	Division
	4 – 6	7.1 – 7.6	Ratio & Proportional Relationships
	7 – 9	8.1 – 8.6	Number Theory
	10 – 12	9.1 – 9.4	Expressions, Variables, Equations
	13 – 15	9.5 – 9.7	Sequences & Functions

**TEXES Competencies:** Competencies 15, 18, & 14 (Generalist EC-6)  
 Competencies 19, 22, & 18 (Bilingual Generalist EC-6)  
 Competencies 12, 13, 14, 15 & 24 (Generalist 4-8)  
 Competencies 16, 17, 18, 19 & 28 (Bilingual Generalist 4-8)  
 Competencies 3, 4, 5, 15 & 16 (Mathematics 4-8)

**Important Dates:** Census Day – Last Day to Drop without a “W” (Sept. 8th)  
 Last Day to Drop with a “W” (Oct. 29th)

<b>Grading Policy:</b>	Quizzes	15%	A=90 and above
	Homework Assignments	15%	B=80-89
	Exam 1	20%	C=70-79
	Exam 2	20%	D=60-69
	Final Exam	30%	F=59 and below
	<b>Final Exam Tuesday, Dec. 7<sup>th</sup>, 4:00 pm – 6:45 pm</b>		

**Make-up Policy:** Late assignments will not be accepted. Be aware that all assignments have due dates, usually at midnight on Sunday. The lowest grade on homework assignments and quizzes will be dropped. If you miss an exam, it can be made up with permission from the instructor. Your lowest exam grade will be replaced by the average between the final exam and the low exam grade (only if it benefits you).

**Attendance Policy:** Attendance is required.

**Incomplete Policy:** All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. The College of Science allows a period of one month to complete this contract. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

**Academic Integrity Policy:** Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Refer to the UTEP’s Policy at <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>.

**Civility Statement:** Be polite and respectful to your classmates and instructor.

**Disability Statement:** If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass).

**Military Statement:** If you are a military student with the potential of being called to military service and/or training during the semester, please contact me by the end of the first week of class.