

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

Course Number: MATH 3305 - 11811

Course Title: Proportion and Algebra

Credit Hrs: 3

Term: Fall 2015

Course Meetings & Location: Mondays and Wednesdays from 4:30 pm to 5:50 pm
UGLC 336

Prerequisite Courses: MATH 2303 with a grade "C" or better

Course Fee: (if applicable) None

Instructor: Rocio E. Gallardo

Office Location: TBA

Contact Info: E-mail Address: regallardo@miners.utep.edu
Office Phone: TBA
Fax Number: TBA
Emergency Contact: (915) 747-5703

Office Hours: Thursday 11:30 am to 1:20 pm

Textbook(s), Materials: Required: Mathematics for Elementary Teachers with Activities (4th Ed)
By Sybilla Beckmann (purchase online with a discount code)

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; and
- (e) develop the skills of active reading and understanding mathematical texts.

Course Activities/Assignments: This course uses the support of learning communities and the active participation of students to create, enhance, and support conceptual mathematical understanding. Students should be able to make connections between mathematical concepts and their out of school application. Students are expected to analyze course materials in a genuine search for further mathematical clarification, complete individual online work, take on-line quizzes, and submit reflection prior to each class meeting. During class meetings, students will clarify their understandings, apply their knowledge to solve challenging problems, and take an in-class assessment. Homework will be assigned after each class meeting. Students will need to have internet access to sites like Blackboard and MyMathLab

Assessment of Course Objectives:

- In-class assessments are administered at the beginning of a class. The questions in these assessments are designed to assess your understanding of the assigned readings and online work.
- Online assessments are done via MyMathLab, which requires to have an access code.
- Group and individual projects are posted via MyMathLab at the beginning of each chapter and will be presented at the end of the corresponding week.
- Online assignments are posted on MyMathLab and are due before each class meeting.
- Examinations are based on your understanding of the concepts. Some exam problems are similar to those in the textbook, online quizzes, and in-class activities. Most problems require you to think and apply your understanding. To compensate for the higher-cognitive demand questions, the following scale is used for exams:

- A \geq 80%
- B 70% - 80%
- C 60% - 70%
- D 45% - 60%
- F < 45%

- The final examination is comprehensive.

Course Schedule:

Weeks	Sections	Topic
1 – 3	6.4 – 6.6	Division
4 – 6	7.1 – 7.5	Ratio & Proportional Relationships
7 – 9	9.1 – 9.5	Expressions, Variables, Equations
10 – 12	8.1 – 8.7	Number Theory
13 – 15	9.6 – 9.8	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” (Sep 9)
- Last Day to Drop with a “W” (Oct 30)

Grading Policy:	Online Quizzes & In-class Assessments	15%
	Group and Individual Projects	15%
	Project Presentations	10%
	Online Assignments	20%
	Mid-term Examination	15%
	Final Examination	25%
	Total	100%

Make-up Policy: There will be no make up for homework assignments. The lowest score of your homework assignments will be dropped. If you should miss the exam, the possibility of a make- up will be determined you can provide documentation to support your reason. If it is not documented, your exam grade will be counted as the missed-exam grade

Attendance Policy: Attendance will be taken.

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, the 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 <http://admin.utep.edu/Default.aspx?PageContentID=2083&tabid=30292>.

Civility Statement: Be punctual. If you are late for class you will not be given extra time to complete your quiz and 20% of your score will be deducted.

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, 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.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the course of the semester, please inform your instructor as soon as possible.