

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

- Course Number:** MATH 3305 - 22240
- Course Title:** Proportion and Algebra
- Credit Hrs:** 3
- Term:** Spring 2016
- Course Meetings & Location:** Mondays and Wednesdays from 1:30 pm to 2:50 pm
QUIN 103
- Prerequisite:** MATH 2303 with a grade "C" or better
- Course Fee: (if applicable)** None
- Instructor:** Rocio E. Gallardo, Ph.D
- Office Location:** Bell Hall 130E
- Contact Info:** E-mail Address: regallardo@utep.edu
Office Phone: TBA
Fax Number: TBA
Emergency Contact: (915) 747-5703
- Office Hours:** Tuesdays 9:30 am to 11:30 am or by appointment
- 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 homework, 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.

IMPORTANT: Students must read the material before the class to understand the material taught in class and be ready to take the quiz.

**Assessment of Course
Objectives:**

- In-class assessments are administered at the end of the sections. The questions in these assessments are designed to assess your understanding of the assigned readings and online work.
- Online assignments are done via MyMathLab, which requires to have an access code. MymathLab homeworks will be not accepted on paper (there is no excuse).
- Group and individual projects are posted via MyMathLab or Blackboard and will be presented the date indicated by the teacher.
- Online assignments are posted on MyMathLab and are due the date indicated by the teacher.
- Examinations are based on your understanding of the concepts. Some exam problems are similar to those in the textbook, in-class assessments, 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” (Wednesday, February 3th)
Last Day to Drop with a “W” (Friday Apr 1th).
Students who decide to drop the course must process a drop form, in person, at the Registrar's Office, by April 1th.
UTEP will be closed on Wednesday, February 17th due to Pope Francis’s visit.

Grading Policy:	In-class Assessments	15%
	Group and Individual Projects	15%
	Project Presentations	10%
	Assignments	20%
	Mid-term Examination	15%
	<u>Final Examination</u>	<u>25%</u>
	Total	100%

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