

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

- Course Number:** MATH 3305 – 22013
- Course Title:** Proportion and Algebra
- Credit Hours:** 3
- Term:** Spring 2018
- Course Meetings & Location:** Tuesdays & Thursdays: 10:30 AM – 11:50 AM  
LART 207
- Prerequisite Courses:** MATH 2303 with a grade “C” or better
- Course Fee: (if applicable)** None
- Instructor:** Kien Lim
- Office Location:** Bell Hall 301
- Contact Info:** E-mail Address: [kienlim@utep.edu](mailto:kienlim@utep.edu)  
Office Phone: (915) 747-6772  
Fax Number: (915) 747-6502  
Emergency Contact: (915) 747-5761
- Office Hours:** 3 PM – 4:15 PM on Tuesdays except Feb 13, Mar 6, Apr 10, May 1  
12 PM – 1:15 PM on Feb 13, Mar 6, Apr 10, May 1
- 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;
  - (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.

- Textbook(s), Materials:**
1. Mathematics for Elementary Teachers with Activities (5th Ed) by Sybilla Beckmann (use the 20% code “MPS20” for online purchase at [www.mypearsonstore.com](http://www.mypearsonstore.com)).
  2. MyMathLab. With an access code, register for the course with id “lim27179” at [www.pearsonmylabandmastering.com/northamerica/](http://www.pearsonmylabandmastering.com/northamerica/).

- Course Activities/Assignments:**
- Students will participate in in-class activities, read and understand the textbook, watch math videos, create notes, turn-in weekly homework assignments, take online quizzes or surveys, and prepare for in-class assessments and exams.
  - Students are expected to put in an average of 9 hours of study time per week for a 3-credit hour course.
  - Students will need to have internet access to sites like Blackboard, MyMathLab (course id is “lim27179”) and Edpuzzle (class id is “levupih”).

- 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 you need to have an access code.
  - Homework assignments are posted via Blackboard after each class and are to be turned in at the beginning of the class on Tuesdays.
  - Examinations are based on your understanding of the concepts. Some exam problems are similar to those in the textbook, online work, 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	≥ 80%
B	70% - 80%
C	60% - 70%
D	45% - 60%
F	< 45%
  - The final examination is comprehensive, and you are allowed a 2-page of notes for the final exam.

**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) Jan 31  
Course Drop Deadline (Last day to drop with a “W”) Mar 29  
Final Exam Week May 7-11

**Grading Policy:** In-class & Online Assessments 15%  
Homework Assignments 20%  
Mid-term Examination 1 20%  
Mid-term Examination 2 20%  
Final Examination (May 10, 10am) 25%

**Make-up Policy:**

- There will be no make-up for assignments and assessments. The lowest score of your assignments and the lowest score of your quizzes will be dropped to allow for one missed assignment/assessment.
- If you should miss the exam, the possibility of a make-up will be determined on an individual basis. If you cannot provide documentation to support your reason, 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, 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://sa.utep.edu/osccr/academic-integrity/>.

**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](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 course of the semester, please inform your instructor by the end of the first week of class.