Course Number: MATH 3305 - 11226
Course Title: Proportion and Algebra
Credit Hrs: 3
Term: Fall 2021
Course Meetings & Location: MW 3:00 pm – 4:30 pm, LART 122
Prerequisite Courses: MATH 2303 with a grade “C” or better
Instructor: Jeremy Ramirez
Office Location: Library 515 or Zoom
Contact Info: E-mail Address: jlramirez3@utep.edu
Office Hours: After class or by appointment.
Textbook(s), Materials: Required: Mathematics for Elementary Teachers with Activities (5th 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.
**Course Schedule:**

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Sections</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 3</td>
<td>6.4 – 6.6</td>
<td>Division</td>
</tr>
<tr>
<td>4 – 6</td>
<td>7.1 – 7.6</td>
<td>Ratio &amp; Proportional Relationships</td>
</tr>
<tr>
<td>7 – 9</td>
<td>8.1 – 8.6</td>
<td>Number Theory</td>
</tr>
<tr>
<td>10 – 12</td>
<td>9.1 – 9.4</td>
<td>Expressions, Variables, Equations</td>
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<tr>
<td>13 – 15</td>
<td>9.5 – 9.7</td>
<td>Sequences &amp; Functions</td>
</tr>
</tbody>
</table>

**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)

**Grading Policy:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Grade Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>15%</td>
<td>A=90 and above</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>15%</td>
<td>B=80-89</td>
</tr>
<tr>
<td>Exam 1</td>
<td>20%</td>
<td>C=70-79</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20%</td>
<td>D=60-69</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td>F=59 and below</td>
</tr>
</tbody>
</table>

**Final Exam Monday, Dec. 6th, 1:00 pm – 3:45 pm**

**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.

**Attendance Policy:** Attendance is required.

**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](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, 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.

Covid-19 Precaution Statement: Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.