Course Number: MATH 3305 - 11705
Course Title: Proportion and Algebra
Credit Hrs: 3
Term: Fall 2016
Course Meetings & Location: MW 10:30AM – 11:50AM
Education Building 311
Prerequisite Courses: MATH 2303 with a grade “C” or better
Course Fee: (if applicable) None
Instructor: Alejandro Galvan
Office Location: Bell Hall 130b
Contact Info: E-mail Address: agalvan4@utep.edu
Office Phone: TBA
Fax Number: (915) 747-6502
Emergency Contact: (915) 747-5761
Office Hours: W 1:30PM – 2:30PM,
F 10:00AM – 12:00PM,
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: Course activities will include quizzes, classroom activities/discussions, homework assignments, assessments, two exams and a comprehensive final exam.

Assessment of Course Objectives: All class activities and homework assignments will be assessed for completeness and correctness. All quizzes, assessments, and exams will be assessed for correctness.

Tentative 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 – 7.5</td>
<td>Ratio &amp; Proportional Relationships</td>
</tr>
<tr>
<td>7 – 9</td>
<td>9.1 – 9.5</td>
<td>Expressions, Variables, Equations</td>
</tr>
<tr>
<td>10 – 12</td>
<td>8.1 – 8.7</td>
<td>Number Theory</td>
</tr>
<tr>
<td>13 – 15</td>
<td>9.6 – 9.8</td>
<td>Sequences &amp; Functions</td>
</tr>
</tbody>
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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 7)
- Last Day to Drop with a “W” (Apr 28)

Grading Policy:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Participation</td>
<td>05%</td>
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<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Homework</td>
<td>15%</td>
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<tr>
<td>Assessments</td>
<td>15%</td>
</tr>
<tr>
<td>Examination</td>
<td>25%</td>
</tr>
<tr>
<td>Final Examination (TBA)</td>
<td>25%</td>
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</tbody>
</table>

Make-up Policy:

- There will be no make-up for assignments and assessments. The lowest score of your homework assignments and the lowest score of your assessments will be dropped.
- 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, 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 polite and respectful to your classmates.

You will not be able to use your phone on exams for any reason. Be sure to bring a calculator.
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.