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

Course Number: MATH 2304 - 12984
Course Title: Geometry & Measurement
Credit Hrs: 3
Term: Fall 2015
Course Meetings & Location: MW 10:30 – 11:50
LART 206
Prerequisite Courses: MATH 2303 with a grade “C” or better
Course Fee: (if applicable) None
Instructor: Norma Martinez
Office Location: TBA
Contact Info: E-mail Address: namartinez4@miners.utep.edu
Office Phone: TBA
Fax Number: (915) 747-6502
Emergency Contact: (915) 229 6145
Office Hours: W 3:00-4:20 PM
Textbook(s), Materials: Required: Mathematics for Elementary Teachers with Activities (4th Ed) by Sybilla Beckmann (use the 20% code “utempmath2015” for online purchase at www.mypearsonstore.com).

Course Description: This course focuses on geometry and measurement for prospective elementary and middle school teachers. Topics include measurement as a process of units of measurement for quantities such as length, area, volume, angle size, and speed; conversions of units of measurement; properties and formulas for basic geometrical shapes such as polygons, circles, polyhedra, and cones; transformations such as translations, rotations, reflections, and dilations to geometric relationships and constructions using straight edge, compass, and technology. The focus is on spatial reasoning, logical reasoning, and making connections among geometric ideas and measurement, number concepts, and algebra.

Course Objectives: Students will
(a) deepen their understanding of geometry as a study of space and shapes, and measurement as a process of determining size;
(b) make connections and distinction among between concepts, e.g., congruent figures and rigid motion, similarity and proportionality;
(c) conceive mathematics as a problem solving endeavor that involves visualizing, investigating, and analyzing;
(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.
This course uses the support of learning communities and the active participation of students as the vehicle to create, enhance, and support conceptual mathematical understanding. Students should be able to make connections between specific mathematical concepts and its application in the real world. Learners 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 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 you need 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:

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Sections</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 3</td>
<td>10.1 – 10.5</td>
<td>Geometry</td>
</tr>
<tr>
<td>3 – 6</td>
<td>11.1 – 11.4</td>
<td>Measurement</td>
</tr>
<tr>
<td>7 – 9</td>
<td>12.1 – 12.9</td>
<td>Areas &amp; Perimeters</td>
</tr>
<tr>
<td>10 – 11</td>
<td>13.1 – 13.4</td>
<td>Volumes &amp; Surface Areas</td>
</tr>
<tr>
<td>12 – 15</td>
<td>14.1 – 14.6</td>
<td>Geometry of Motion &amp; Change</td>
</tr>
</tbody>
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### TExES Competencies:

- Competencies 16 & 18 (Generalist EC-6)
- Competencies 20 & 22 (Bilingual Generalist EC-6)
- Competencies 17, 18, 19, 20 & 24 (Generalist 4-8)
- Competencies 21, 22, 23, 24 & 28 (Bilingual Generalist 4-8)
- Competencies 8, 9, 10, 11, 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%

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 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.

                Phones and other electronic devices will not be allowed during class sessions. No video recording will be allowed at any time. During in-class test sessions the students must leave their phones and other electronic devices in their classroom at all times. Students who insist in using their cell phone during class sessions will be asked to leave the classroom.

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.