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

Course Number: MATH 2303 - 16229
Course Title: Number Concepts
Credit Hrs: 3
Term: Fall 2021
Course Meetings & Location: TR 10:30 am – 11:50 am
Zoom
Prerequisite Courses: MATH 0311 or an adequate score on a placement exam
Instructor: Jeremy L. Ramirez
Office Location: Library 515 or ONLINE
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 Access Code: ramirez00655

You will need a device with an internet connection to get into Blackboard. You will need to download Respondus Lockdown Browser and Monitor for exams, and you will need a webcam in order for it to work.

Course Description:
This course focuses on numbers and operations for prospective elementary and middle school teachers. Topics include place value, whole numbers, rational numbers, signed numbers, arithmetic operations and algorithms, divisibility tests, multiples and factors. The focus is on conceptual understanding, quantitative reasoning, number sense, multiple representations and ways of thinking, mathematical justification and communication, problem solving, connection making and addressing students' common misconceptions and errors.

Course Objectives:
Students will
(a) deepen their conceptual understanding of numbers and operations by explaining why and making connections;
(b) conceive mathematics as a problem-solving endeavor that involves sense-making and thinking; and
(c) develop the habit 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 – 2</td>
<td>1.1 – 1.4</td>
<td>Numbers &amp; Base-Ten System</td>
</tr>
<tr>
<td>3 – 5</td>
<td>2.1 – 2.5</td>
<td>Fractions &amp; Problem Solving</td>
</tr>
<tr>
<td>6 – 8</td>
<td>3.1 – 3.5</td>
<td>Addition &amp; Subtraction</td>
</tr>
<tr>
<td>9 – 10</td>
<td>4.1 – 4.6</td>
<td>Multiplication (Whole numbers)</td>
</tr>
<tr>
<td>11 – 12</td>
<td>5.1 – 5.4</td>
<td>Multiplication (Rational &amp; Signed Numbers)</td>
</tr>
<tr>
<td>13 – 15</td>
<td>6.1 – 6.3</td>
<td>Division (Whole numbers)</td>
</tr>
</tbody>
</table>

TExES Competencies:

- Competencies 14 & 18 (Generalist EC-6)
- Competencies 18 & 22 (Bilingual Generalist EC-6)
- Competencies 10, 11, 12, & 24 (Generalist 4-8)
- Competencies 14, 15, 16, & 28 (Bilingual Generalist 4-8)
- Competencies 1, 2, 3, 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:

- Quizzes: 15% A=90 and above
- Homework Assignments: 15% B=80-89
- Exam 1: 20% C=70-79
- Exam 2: 20% D=60-69
- Final Exam: 30% F=59 and below

**Final Exam Thursday, Dec. 9th 10:00 am – 12:45 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. Your lowest exam grade will be replaced by the average between the final exam and the low exam grade (only if it benefits you).

Attendance Policy: Attendance is required.

Incomplete Policy: All grades of Incomplete must be accompanied by an Incomplete Contract that has been signed by the instructor of record, student, departmental chair, and the dean. The College of Science allows a period of one month to complete this contract. A grade of Incomplete is only used in extraordinary circumstances confined to a limited event such as a missed exam, project, or lab. If the student has missed a significant amount of work (e.g. multiple assignments or tasks), a grade of Incomplete is not appropriate or warranted.

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. You may only use materials allowed by the instructor during exams.

**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.