

UNIVERSITY OF WEST GEORGIA – SPRING 2016 SEMESTER

Course: MATH 2008-03, Foundations of Numbers and Operations - 3 credit hours

Course Description: This course is an Area F introductory mathematics course for early childhood education majors. This course will emphasize the understanding and use of the major concepts of numbers and operations. As a general theme, strategies of problem solving will be used and discussed in the context of various topics.

Learning Outcomes: Upon successful completion of this course, students will demonstrate:

1. A better understanding of standard vocabulary and symbols of elementary mathematics;
2. An understanding of the development of number systems from the whole numbers to integers then rational numbers and reals;
3. An understanding of operations, algorithms, place value, elementary number theory;
4. An ability to apply concepts of fractions, decimals, percents, ratio, and proportion in problem-solving situations;
5. An appreciation for mathematics from an historical perspective;
6. A better understanding of the uses of manipulatives, technology, and other materials for the P-8 level;
7. A better understanding of the vision of math education in NCTM's Principles and Standards (2000);
8. A better understanding of the scope and sequence of elementary school mathematics programs;

Prerequisites: MATH 1001 or 1111 or 1113 with a grade of C.

Instructor: Dr. Veena Paliwal vpaliwal@westga.edu

Phone: 678-839-4128

Office : Boyd 318

Office Hours: TR 11:00a.m.—12:30p.m, 2:00p.m.—3:30p.m., W 9:30a.m.-11:30a.m. (by appointment only)

Class Meets: TR 12:30p.m.-1:50p.m. Boyd Building: Room 307

Materials Needed: The textbook is, "A problem solving Approach to Mathematics for Elementary Teachers", 11th edition by Billstein, Libeskind, Lott from Pearson Publishers.

Evaluations and Grading Procedures:

Homework and quizzes (20%): There will be homework assignments and in-class quizzes. Group homework assignment will be given at the end of a class and will be due at the next meeting. NO LATE HOMEWORK WILL BE ACCEPTED. Quizzes will be pop-up quizzes given in the last 15 minutes of the class and will be announced on a particular day itself. It is therefore important to attend the class every day. Most of the times the quizzes will be based on the material covered in the class that day.

Micro-teaching (10%): I really want each student to come and share their ideas about mathematics teaching and learning with rest of the class. Therefore, I want each group to present a micro-teaching lesson (15-20 minutes) in the last week of the class. Your grade will be based on my evaluation and other groups' evaluation of your groups' presentation.

Exams (45%): There will be 3 one-hour exams, and each exam will be announced at least one (1) week prior to the exam date. Unexcused absences from an exam will result in a grade of zero (0) for that exam.

Final Exam (25% of the grade): A comprehensive final exam will be given during Finals Week.

Letter grades will be assigned by the following scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	E

Attendance Policy: You will be allowed ONE unexcused absence. You will be allowed TWO additional absences with a documented excuse that was beyond your control (doctor said so, car accident, etc.) Poor planning and

poor judgment, which result in missing class, do not count as excused. For every absence beyond those mentioned above, your overall course grade will be lowered by 5%. Students are expected to attend class and complete all work when assigned. Students are responsible for the topics covered and assignments due whether present or not. "I was not here" is **NOT** a valid excuse. **You will be responsible for signing the attendance sheet during each class period.**

Make-up policy: There will be NO make-ups for HW assignments or quizzes, since some will be dropped. No make-up exam will be allowed.

Extra-credit policy: Please note that **NO extra credit will be given!** Points can be earned only as stated above.

Class Rules: You are to turn off your cellular phone during the class. You are not allowed to use your phone as a calculator. Please respect your instructor and other students in the class. No talking or any distracting behavior. If you fall asleep in class, you will be asked to leave.

University policies: Please refer to university's policy at [http:// tinyurl.com/UWGSyllabusPolicies](http://tinyurl.com/UWGSyllabusPolicies)

Meeting with: Meeting with the instructor can be beneficial and is encouraged. The meeting should occur during the office hours, whenever possible. If these hours conflict with a student's schedule, then appointments should be made.

Math Tutoring Center: Please use the tutoring center at Boyd 205 You can just walk in and get help.

This is a tentative schedule of assignments and topics to be covered in class sessions. Changes will be made as needed. Once we finish a section, we will immediately move along to the next section. It is recommended that you read over text sections BEFORE we cover them in class. After we cover topics, you should complete assignments and do any extra practice or get help as needed. Don't wait until its too late (like after doing bad on a test).

- Week 1: Chapter 1
- Week 2: Chapter 2
- Week 3: Chapter 2
- Week 4: Review chapters 1 and 2, and exam 1
- Week 5: Chapter 3
- Week 6: Chapter 3
- Week 7: Chapter 3 and start chapter 4
- Week 8: Chapter 4
- Week 9: Review chapters 3 and 4, and exam 2
- Week 10: Chapter 5
- Week 11: Chapter 5
- Week 12: Chapter 6
- Week 13: Review chapter 5 & 6, and exam 3
- Week 14: Micro-teaching
- Week 15: Review for the final exam