

Math 110 (W-10433 and T-10435)
Number System in Elementary Mathematics – Fall 2012

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Text: Reconceptualizing Mathematics for Elementary School Teachers, Sowder, Sowder, Nickerson. 1st ed.

Last Day to Withdraw with a W – November 10, 2012

Final Exam: Tuesday, December 4 and Wednesday, December 5, 2012

Prerequisite: Math 90 (grade of C or better) or appropriate Placement Score.

COURSE DESCRIPTION

This is a transfer level course recommended for students who are working towards a teaching credential in elementary education. Topics discussed are sets and relations, development of the number system from the natural numbers including whole, rational and real numbers, number theory, ratio and proportion.

COURSE OBJECTIVES

1. The student will analyze mathematical patterns and will solve problems with the calculator as a supporting tool.
2. The student will demonstrate an understanding and comprehension of topics dealing with sets, functions and numeration.
3. The student will demonstrate an understanding and a working knowledge of whole numbers with emphasis placed on various bases.
4. The student will demonstrate an understanding and comprehension of elementary concepts of integer arithmetic.
5. The student will analyze basic number theory.
6. The student will demonstrate an understanding and comprehension of elementary concepts of fractional numbers, and the use of decimals and exponents.
7. The student will demonstrate knowledge of ratios and proportions.

STUDENT LEARNING OUTCOMES

Students will demonstrate knowledge of the number system through:

1. Modeling operations by use of drawing base ten blocks.
2. Written communication skills – explanations of mathematical operations and story problems.
3. Model elementary operations – demonstrate number line model operations, chip model, expanded notation, partial products, partial sums, lattice multiplication, and or scratch addition.

COURSE COMPONENTS

ASSIGNMENTS AND LATE WORK POLICY

The problems listed are to help you understand concepts and how to communicate mathematically. Each homework assignment will have a fixed due date corresponding to the quiz that covers the material from that assignment. For example, homework for Chapter 1 would be due Week 2. Absolutely no late work will be accepted. The HW will receive a maximum of 20 points regardless of the length of the assignment. The HW is assessed by completeness and quality.

EXAMS/TESTS

Exams will be comprehensive and may include any or all types of assessment – true/false, multiple-choice, short answer, models, and essay. There is no makeup for exams; if you miss an exam, it will be recorded as a zero.

GRADING POLICY

Your grade will be comprised of the following items:

11 chapters of homework @ 20 points/chapter	220 points	~32%
8 quizzes@10 points each	80 points	~12%
2 Exams @ 100	200 points	~28%
1 final exam @ 200 points	200 points	~28%
Total	700 points	100.00%

Your final grade will be based on the following points and percentages:

90% to 100%	630-700 points	A
80% to 89%	560-629 points	B
70% to 79%	490-559 points	C
60% to 69%	420-489 points	D
Below 60%	Below 420 points	F

TENTATIVE SCHEDULE

Week	Date	Description/Readings/Exams
1	8/20	Ch1
2	8/27	Ch2, Q Ch1, HW Ch1 due 1.2.9, supp1.2.4c, 1.4.3, 1.4.9
3	9/3	Ch3, Q Ch2, HW Ch2 due supp2.2.1, 2.3.2, 2.3.3,2.3.9, 2.3.18,
4	9/10	Ch3-Ch4
5	9/17	Ch5, Q Ch 3-4, HW Ch3-4 due Exam Ch1-4
6	9/24	Ch6, HW Ch5 due
7	10/1	Ch6
8	10/8	Ch7, Q Ch6, HW Ch6 due
9	10/15	Ch7
10	10/22	Ch8, Q Ch7, HW Ch7 due
11	10/29	Ch8-Ch9 Exam Ch5-8
12	11/5	Ch9, Q Ch8-9, HW Ch8-9 due
13	11/12	Ch10-Ch11
14	11/19	Ch11, Q Ch10, HW Ch10 due
15	11/26	Ch11, Q Ch11, HW Ch11 due and Review Final
16	12/3	Final Exam – Comprehensive (Ch1-Ch11)

IVC POLICIES

- Under IVC policy, students are expected to attend every session of class in which they are enrolled. If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. I will not drop you from the course. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade. **The last day to withdraw from this course with a "W" is midnight, November 10, 2012.**
- Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Room 2117, in the Health Sciences Building. Their phone number is (760) 355-6312.
- Disruption of other students will result in a reprimand or expulsions from the class for that day. A second offense can result in administrative discipline.
- Cheating is not tolerated and will result in discipline from the administration.
- Bottled water is the only food or drink allowed in the room.

MY POLICIES

- Examples of "disruption" include: Cell phones ringing or vibrating, texting, reading other materials or using a computer for any purpose other than class related work, conversations with other students unless it is during group activities. Using group activity time to use the restroom, go outside to make a call, or impeding the progress of the activity with other conversations can result in your dismissal from class for that session.
- No electronic devices can be used during an exam except a standard calculator. (i.e. no cell phones or transmittal devices may be used for calculation)
- Quality work is expected. If a student meets the stated requirements for an assignment, but does it in a minimal fashion, the maximum grade for the product will be points valued at "C". To earn points valued at "B" or "A" there must be reasonable quality in the work.
- Participation in class activities is mandatory and can result in a reduction of your grade for failure to participate.