

CONCEPTS AND STRUCTURE OF ELEMENTARY MATHEMATICS
MATH 1410

Instructor:

Office:

e-mail:

Office Hours:

Prerequisite: Two years of high school algebra and a Math Enhanced ACT of at least 19, or at least a C in DSM 085, or AAPP placement. NOTE--this course alone does not satisfy the General Education requirement in mathematics.

Text (required): Mathematics for Elementary School Teachers. Billstein, Libeskind, Lott. Ninth edition - available at bookstore.

Calculator (required): Texas Instruments 34 II (or equivalent) - available at bookstore.

Purpose: The purpose of MATH 1410 is to teach mathematical reasoning couched within a problem solving paradigm. The mathematics of natural numbers, whole numbers, integers, and rational numbers are its focus. This is not a "methods" course. MATH 1410 is the first in a two, three, or four course sequence. A grade of "C" or better is prerequisite for the next course in the sequence, MATH 1420. Students will be encouraged to make connections between different fields of mathematics, between mathematics and other subject areas and between mathematics and the real world.

Objectives: Using the NCTM's *Curriculum and Evaluation Standards for School Mathematics* as a professional reference, the objectives of this course will include teaching and learning (1) mathematical reasoning in a way that discourages memorizing procedures and individual problems; (2) problem solving in a way that de-emphasizes mechanistic answer-finding; and, (3) how to connect mathematical ideas and its applications in a way that challenges the often-held belief that mathematics is a body of isolated concepts and procedures. In addition, an objective of this course will be to encourage students to become independent learners using logic and mathematical evidence as verification of ideas rather than a teacher as the sole authority for right answers.

Arithmetic Proficiency Test: The successful completion of an Arithmetic Proficiency Test (APT) is required in this course. This test will be administered in the Mathematics Learning Center (MLC) located in KOM 204. A score of at least 90% is required to receive a grade in MATH 1410. The score on the APT is not calculated in determining the student's grade for MATH 1410. Students failing to pass the APT will receive an "I" if they are otherwise passing the course. The "I" will be replaced with the letter grade the student earned in MATH 1410 if the student passes the APT during the next semester. Students may take the APT up to three times during the semester in which they are enrolled in MATH 1410. Students must have taken the APT at least once by . Hours of operation for the Mathematics Learning Center will be announced and posted ASAP.

When you enter KOM 204 you must sign in with the lab worker. He/She will ask for your picture ID and will return your ID when you finish the exam. The lab worker will provide scratch paper and an ID-code required by the computer. The lab worker will time the exam. The limit is 35 minutes. If you do not score 90%, the computer will inform you of the test objectives which you need to practice. When you finish the exam, turn in your scratch paper and the lab worker will return your picture ID. Please note that there is a practice test available on the computers in the MLC. The practice test gives you the option of requesting as many questions regarding a particular objective as you wish.

Grading Policy:

Grading Scale: A - 90% to 100% of points possible
B - 80% to 89% "
C - 70% to 79% "
D - 60% to 69% "
F - less than 60% "

Homework/Quizzes: Completing every homework assignment and asking questions when you don't understand are essential.

Absentee Policy: Daily attendance and participation is required. Tardiness will be discouraged.

Material to be covered:

Chapter 1 1.1, 1.2, 1.3
Chapter 2 2.1, 2.2, 2.3, 2.4, 2.5
Chapter 3 3.1, 3.2, 3.3, 3.4
Chapter 4 4.1, 4.2, 4.3, 4.4, 4.5
Chapter 5 5.1, 5.2, 5.3, 5.4
Chapter 6 6.1, 6.2, 6.3, 6.4, 6.5, 6.6

Drop/Withdrawal Policy: Please note the Drop Policy and Withdrawal Procedures as they are stated in the Schedule Book and the MTSU Undergraduate Catalog. The last day to drop this course without a grade is . The last day to drop this course with a "W" is March 5. A grade of "I" will be given only in accordance with University Policy.

Lottery Scholarships: To retain Tennessee Education Lottery Scholarship eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 attempted hours and a cumulative TELS GPA of 3.0 thereafter. A grade of C, D, F, or I in this class may negatively impact TELS eligibility. Dropping a class after 14 days may also impact eligibility; if you withdraw from this class and it results in an enrollment status of less than full time, you may lose eligibility for your lottery scholarship. Contact your academic advisor for more information.

Disability Assistance: If you have a disability that may require assistance or accommodation, or you have questions related to any accommodations for testing, note takers, readers, etc., speak with me as soon as possible. Students must also contact the Office of Disabled Students Services (898-2783) with questions about scheduling such services.

Final exam: Wednesday, May 2, 7:30 a.m. – 9:30 a.m.