Mathematics for Teachers I(MATH 1350) Online

Credit: 3 semester credit hours (3 hours lecture)

Prerequisite/Co-requisite:

- MATH 1314 or MATH 1414 College Algebra
- Complete the Online Orientation and answer yes to 7+ questions on the Online Learner Self-Assessment:
  http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx

Course Description

This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking.
This course is time-bound, structured, and online.

Required Textbook and Materials

1. MyMathLab Standalone Access Code
   a. May be purchased online at **www.mymathlab.com**
   b. May be purchased at a local bookstore:
      ISBN: 9780135909751 ---- 18 Weeks
      ISBN: 9780135190050 ---- 24 Months
2. A basic six-function calculator (+, −, ÷, x, √, %) with a ± key

Course Objectives

Upon successful completion of this course, students will:
1. Explain and model the arithmetic operations for whole numbers and integers.
2. Explain and model computations with fractions, decimals, ratios, and percentages.
3. Describe and demonstrate how factors, multiples, and prime numbers are used to solve problems.
4. Apply problem-solving skills to numerical applications.
5. Represent and describe relationships among sets using the appropriate mathematical terminology and notation.
6. Compare and contrast structures of numeration systems.

Course Outline

A. An Introduction to Problem Solving
    1.Mathematics and Problem Solving

B. Introduction to Logic and Sets
    1. Describing Sets
    2. Set Operations and Cartesian
        Products

C. Numeration Systems and Whole
    Numbers Operations
    1. Numeration Systems
    2. Addition of Whole Numbers
    3. Subtraction of Whole Numbers
    4. Multiplication of Whole Numbers
    5. Division of Whole Numbers

D. Number Theory
    1. Divisibility
    2. Prime and Composite Numbers
    3. Greatest Common Factor and Least
        Common Multiple

D. Integers
    1. Addition and Subtraction of Integers
    2. Multiplication and Division of
        Integers

E. Rational Numbers and Proportional
Reasoning
    1. The Set of Rational Numbers
    2. Addition, Subtraction and Estimation
       with Rational Numbers
    3. Multiplication, Division, and
        Estimation with Rational Numbers
    4. Proportional Reasoning

F. Decimals, Percents and Real Numbers
    1. Terminating Decimal
    2. Operations on Decimals
    3. Repeating Decimals
    4. Percents
    5. Real Numbers

Additional Topics by the Instructor.

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

Online Exams	60%
(Chapter tests will be taken on MyMathLab using Respondus Lockdown Browser) More information will be given by the instructor.	
Course Assignments	40%

Course Requirements
1. The student must purchase all required course materials.
2. The student will be expected to have access to the Internet and a computer with webcam and microphone.
3. The student will logon and access the course a minimum of four times per week.
4. Additional course requirements as defined by the individual course instructor.

Course Policies
1. Cheating of any kind will <u>not</u> be tolerated.
2. Students are responsible for initiating and completing the drop process. Students who stop participating and fail to drop the course will earn an "F" in the course.
3. Additional class policies as defined by the individual course instructor.

Technical Requirements
The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at: http://kb.blackboard.com/pages/viewpage.action?pageId=25368512. A functional broadband internet connection, such as DSL, cable, 3G, 4G, WiMAX, WiFi, satellite, or other broadband access is necessary to maximize the use of the online technology and resources

Disabilities Statement
The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Starfish
LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the

responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.