## Developmental Mathematics (TMTH 0374)

**Credit:** 3 semester credit hours (3 hours lecture)

**Prerequisite/Co-requisite:** None

## Course Description

Topics in mathematics such as arithmetic operations, basic algebra concepts and notation, geometry, and introduction to real numbers and algebraic expressions.

## Required Textbook and Materials

1. MyLabsPlus Standalone Access Code
    a. May be purchased online at **www.lit.mylabsplus.com**
    b. May be purchased at a local bookstore: **ISBN 10: 0558926800**
2. Approved recommended calculators by individual course instructor.

## Course Objectives

Upon completion of this course, the student will be able to:

1. Perform arithmetic operations in the real number system.
2. Solve applied problems using arithmetic operations in the real number system.
3. Solve geometric problems.
4. Apply basic algebraic concepts to simplify whole numbers, expressions and solve linear equations and inequalities.
5. Perform basic operations in fraction, percent and decimal notation.

## Course Outline

**A. Module 1- Whole Numbers**

1. Notation, Order, Rounding
2. Applications and Problem Solving
3. Exponential Notation; Order of Operations
5. Prime vs. Composite; Prime Factorization
6. Greatest Common Factor and Least Common Multiple

**B. Module 2- Fraction Notation**

1. Fraction Notation and Simplifying
2. Multiplication and Division
3. Order; Addition and Subtraction
5. Applications and Problem Solving
6. Order of Operations

**C. Module 3- Decimal Notation**

1. Decimal Notation; Order
2. Rounding
3. Order of Operations
4. Fraction Notation; Decimal Notation
5. Applications and Problem Solving

**D. Module 4- Percent Notation**

1. Ratio and Proportion
2. Percent, Decimal, and Fraction Notation
3. Solving Percent Problems
4. Applications of Percent
5. Simple Interest

**E. Module 5-Data, Graphs and Statistics**

1. Measures of Central Tendency

**F. Module 6-Geometry**

1. Perimeter and Area
5. Circles
7. Similar Triangles

**G. Module 7-Introductions to Real Numbers and Algebraic Expressions**

1. The Real Numbers
2. Addition and Subtraction of Real Numbers
4. Multiplication and Division of Real Numbers
6. Order of Operations
7. Introduction to Algebra
8. Properties of Real Numbers
9. Algebraic Expressions
10. Simplifying Algebraic Expressions

**H. Module 8-Solving Equations**

1. Solving One-Step Equations with Addition or Subtraction
2. Solving One-Step Equations with Multiplication or Division
3. Solving Multi-Step Equations

## Grade Scale

| | |
|---|---|
| **90 – 100** | **DA** |
| **80 – 89** | **DB** |
| **70 – 79** | **DC** |
| **0 – 69** | **DF** |

## Course Evaluation

Final grade will be calculated according to the following criteria:

| | |
|---|---|
| Tests | 60% |
| Comprehensive Final Exam | 10% |
| Course Assignments | 20% |
| Participation | 10% |

## Course Requirements

1. Attendance is mandatory.
2. The student must purchase all of the required course materials.
3. The student will be expected to have access to the Internet and a computer.
4. **Homework:** Problems done on MyLabsPlus. Homework will be completed online in the lab and off-site. Each assignment will have a due date; if an assignment is completed after its due date, **points will be deducted from that assignment. All homework have a prerequisite of 80% or higher in order for students to move forward to the next assignment.**
5. **Quizzes:** Quizzes are Practice Tests done on MyLabsPlus. Try to take them at least once without referring to your text or notebook. **If any of the quizzes are not completed by their due date, the grade for that quiz will be 0.**
6. **Tests and Final Exam:** All tests will be closed book. Every student completing the course MUST take the final exam/TSI. These tests are proctored and will be taken in the class/lab. **Students are permitted to use approved recommended calculators and a standardized formula sheet (if any) when appropriate**. You will need to show all your work on your test paper/loose leaf notebook paper and turn it in when finished. The test questions are to be numbered and completely and neatly worked if taking a test on a computer. It is your responsibility to give the paper to the instructor before submitting the test/leaving class. **Any student with no work on their paper, work that does not match the test taken, or with a submitted exam but no work turned in will be given a 0 for that test question(s).** You must bring approved materials to each test.

The instructor must be contacted within 24 hours of a missed test. No makeup exams will be given without a valid, verifiable reason. **If you are not through with ALL your section homework, you CANNOT take the chapter test.**

7. Additional course requirements as defined by the individual course instructor.

## Course Policies

1. Cheating of any kind will not be tolerated.
2. Additional class policies as defined by the individual course instructor.

## Technical Requirements (for courses using Blackboard)

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at: https://help.blackboard.com/en-us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy A functional broadband internet connection, such as DSL, cable, or WiFi 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. You may also visit the online resource at http://www.lit.edu/depts/stuserv/special/defaults.aspx

## Student Code of Conduct Statement

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

## Course Schedule

- Varies by instructor

## Contact Information

- Varies by instructor

## Disclaimer

- This Master Syllabus is subject to modification by the coordinator.