

## JumpStart Mathematics (TMTH 0132)



**Credit:** 1 semester credit hour (1 hour lecture)

**Prerequisite/Co-requisite:** Students scoring 343-349 on the TSI-Assessment placement test (effective Fall 2013).

### Course Description

Topics in mathematics such as arithmetic operations, basic algebraic concepts and notation, geometry, and real and complex number systems.

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This course is a preparatory course for MATH 1332 Contemporary Mathematics. Each student will be working at their own *self-accelerated pace* with the understanding that **all** requirements for the course **must** be completed satisfactorily by the end of the scheduled semester.

### Required Textbook and Materials

1. MyMathLab Standalone Access Code
  - a. NOTE: Not necessary if code already purchased for MATH 1332
    - i. May be purchased online at **www.mymathlab.com**
    - ii. May be purchased at a local bookstore: **ISBN 032119991X**
2. A basic 6-function calculator (+, -, ÷, x, √, %) with a ± key

### 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. Apply basic algebraic concepts to simplify expressions.
4. Perform basic operations in the complex number system.

### Course Outline

- A. Module 1: Whole Numbers
  1. Notation, Order, Rounding
  2. Applications and Problem Solving
  3. Exponential Notation; Order of Operations
  4. Factors; Multiples; Divisibility
  5. Prime vs. Composite; Prime Factorization
  6. Greatest Common Factor and Least Common Multiple
- B. Module 2: Fraction Notation
  1. Notation and Simplifying
  2. Multiplication and Division
  3. Order; Addition and Subtraction
  4. Mixed Numerals

## **TMTH 0132**

### Course Syllabus

5. Applications and Problem Solving
6. Order of Operations
7. Simple Probability
- C. Module 3: Decimal Notation
  1. 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
- E. Module 5: Statistics
  1. Measures of Central Tendency
- F. Module 7: Introduction to Real Numbers and Algebraic Expressions
  1. The Real Numbers
  2. Addition and Subtraction of Real Numbers
  3. Applications Involving the Addition and Subtraction of Real Numbers
  4. Multiplication and Division of Real Numbers
  5. Applications Involving the 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
- G. Module 9: Additional Topics
  1. Complex Numbers
  2. Introduction to Functions
  3. Function Notation

### **Grade Scale**

70 – 100

**Satisfactory**

0 – 69

**Unsatisfactory**

### **Course Evaluation**

Final grades will be calculated according to the following criteria:

Course Assignments	90%
Participation (as defined by instructor)	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. Additional course requirements as defined by the individual course instructor.

**TMTH 0132**  
Course Syllabus

**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](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](http://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**

- This course is a non-semester length/non-course competency based option.
- It may be offered in a variety of formats.
- Each student will be working at their own self-accelerated pace with the understanding that **all** requirements for the course **must** be completed satisfactorily by the end of the scheduled semester time for this course.

**Contact information varies by instructor.**