Beginning Algebra (TMTH 0365)

Credit: 3 semester credit hours (3 hours lecture)

Prerequisite/Co-requisite: None

Course Description

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

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. Identify and solve linear equations and inequalities in one variable.
2. Identify and solve quadratic equations using factoring
3. Solve systems of linear equations in two variables
4. Recognize and use algebraic properties, concepts, and procedures (including factoring) to combine, transform, and evaluate polynomial expressions.
5. Graph linear equations.

Course Outline

A. **Module 1**- **Introduction to Real Numbers and Algebraic Expressions (Review as needed)**
   1. The Real Numbers
   2. Addition & Subtraction of Real Numbers
   3. Applications Involving the Addition and Subtraction of Real Numbers
   4. Multiplication & 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

B. **Module 2-Solving Equations & Inequalities**
   1. Solving One-Step Equations with Addition or Subtraction
   2. Solving One-Step Equations with Multiplication and Division
   3. Solving Multi-Step Equations
   4. Solving More Multi-Step Equations
   7. Introduction to Inequalities
   8. Solving Inequalities

C. **Module 3**- **Polynomials**
   1. Exponents
   2. Rules of Exponents
   3. Scientific Notation
   4. Introduction to Polynomials
   6. Addition of Polynomials
   7. Subtraction of Polynomials
   8. Multiplication of Polynomials
   10. Division of Polynomials by Monomials
   11. Division of Polynomials by Binomials

E. Module 5: Graphing & Systems of Equations
1. Graphing Linear Equations
2. Graphing Systems of Equations
3. Solving Systems of Equations with Substitution
4. Solving Systems of Equations with Elimination
5. Applications

D. Module 4- Factoring
1. Factoring and the Greatest Common Factor
2. Factoring by Grouping
3. Factoring Trinomials
5. Factoring Binomials
7. Solving Quadratic Equations by Factoring
8. Applications

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 <u>not</u> 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/ Contact Information
- Varies by instructor.