**Hill College**

**112 Lamar Dr.**

**Hillsboro, Texas 76645**

**COURSE SYLLABUS**

**Course Prefix and Number Course Title**

MATH 0302 Section: Semester: Developmental Math II

**Instructor:**

**Contact:** Phone: E-mail:

**ACGM Description**:

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

**Catalog Description**:

MATH 0302

An elementary algebra course designed to prepare the students for success in college level math courses. Topics covered include solid geometry, real numbers, solving equations and inequalities, graphing linear equations, systems of linear equations, operations with polynomials, and factoring of polynomials. This course will not meet the requirements for math credit for graduation with the Associate Degree.

Prerequisites: A grade of C or better in Math 0300 or assignment by appropriate test.

Introduction and Purpose:

This course provides study for students who have not previously mastered basic algebraic concepts and skills. The material covered is necessary for success in Math 0304.

Instructional Materials:

Textbooks: Beginning & Intermediate Algebra, Fifth Edition; Elayn Martin-Gay; Pearson, Prentice Hall and/or Student Access Kit for MyMathLab

Supplies: Pencils, paper and calculator.

Objectives/Student Learning Outcomes:

At the completion of this course, the student should be able to:

1. Define, represent, and perform operations on real numbers.

2. Recognize, understand, and analyze features of a function.

3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.

4. Identify and solve linear and quadratic equations.

5. Identify and solve linear inequalities.

6. Model, interpret and justify mathematical ideas and concepts using multiple representations.

7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

The students' success in completing these objectives will be measured using a set of examinations and assignments described, in detail under the section of this syllabus headed “Method of Evaluation”.

Method of Instruction

Instruction for this course will be delivered using traditional lecture, technology, and audio visual materials where appropriate and/or computer based technology depending on whether the class is face to face or online and the discretion of the instructor.

Method of Evaluation

The grade for the course will be determined based on a combination of homework grades, major test grades, and the Final Exam.

Students must earn a grade of C or better to advance to the next course. A grade of D or F will require the student to repeat the course or advance through the TSI exam.

Letter grades for the course will be based on the following percentages:

90-100% A

80-89% B

70-79% C

Below 70% D or F Based on attendance and participation.

Course Outline:

Class policies:

Regular attendance at all class meetings is required. Disruptions in class will not be tolerated Students will be expected to bring the required materials for all class meetings.

Topic Outline

1. Review of Real Numbers

Symbols and Sets of Numbers

Fractions

Introduction to Variable Expressions and Equations

Perform Operations with Real Numbers

Properties of real Numbers

1. Equations, Inequalities, and Problem Solving

Simplify Algebraic Expressions

Addition and Multiplication Properties of Equality

Solve Linear Equations

Solve various Types of Problems

Solve Linear Inequalities

1. Graphs and Introduction to Functions

Graph Linear Equations

Intercepts

Slope and Rate of Change

Equations of Lines

Functions

IV. Systems of Linear equations

Solve Systems of Linear Equations by Graphing

Solve Systems of Linear Equations by Substitution

Solve Systems of Linear Equations by Addition

Solve Systems of Linear Equations in Three Variables

Solve Problems with Systems of Equations

1. Exponents and Polynomials

Exponents

Perform Operations with Polynomials

Negative Exponents and Scientific Notation

Divide Polynomials

1. Factoring Polynomials

Factor by Grouping

Factor Trinomials

Factor Binomials

Solve Quadratic Equations by Factoring

Solve Problems with Quadratic Equations

**Disabilities/ADA**

Reports of discrimination based on disability may be directed to the ADA/Section 504 coordinator. The College District designates the following person to coordinate its efforts to comply with Title II of the Americans with Disabilities Act of 1990, as amended, which incorporates and expands the requirements of Section 504 of the Rehabilitation Act of 1973, as amended:

Name: Dr. Heather Kissack

Position: Executive Director of Human Resources

Address: 112 Lamar Drive, Hillsboro, TX 76645

Telephone: (254) 659-7731

Students with qualified and documented disabilities may request accommodations which will enable them to participate in and benefit from educational programs and activities. **Students should contact the Academic Advising and Student Success Center for more details at: 254 659 7650 for Hillsboro, 817 760 5650 for Cleburne, or 817 295-7392 for Burleson.**

**EEO Statement**

Hill College is committed to the principle of equal opportunity in education and employment. The college does not discriminate against individuals on the basis of age, race, color, religion, sex, national origin, disability, genetic information, or veteran status in the administration of its educational programs, activities, or employment policies.

**Hill College Mission Statement**

Hill College will provide high quality comprehensive educational programs and services. The college enhances the educational, cultural, and economic development of its service area and assists both individuals and the community to prepare for a more productive life.

Instructor’s class content: