

College Preparatory Mathematics

Target Students: Student who have not demonstrated college-readiness as defined by HB5.

Course Description as defined by Central Texas College: This developmental course includes arithmetic operations, basic algebraic concepts and notations, geometry, and real and complex number systems. The course also covers relations and functions; inequalities; factoring; polynomials; rational expressions; and quadratics. It also provides an introduction to complex numbers. This course will assist the student in acquiring the basic skills needed for college level mathematics intensive courses such as MATH 1414. Students who successfully complete his course will qualify to take MATH 1414.

Course Goal as defined by Central Texas College: The goal of the College Preparatory Mathematics course is to prepare students for college-level courses such as College Algebra and other freshman college mathematics courses.

Course Goal Student Learning Outcomes & Learning Objectives as defined by Central Texas College:

- Perform basic operations of addition, subtraction, multiplication and division of whole numbers, fractions, decimals and signed numbers and transfer this knowledge to the solution of application problems.
- Identify, graph and solve linear, quadratic, and rational equations and transfer this knowledge to the solution of application problems.
- Solve systems of linear equations by graphing, substitution and addition with up to three unknowns.
- Solve and graph nonlinear and absolute value inequalities.
- Perform basic operations of polynomials, rational, and radical expressions and transfer this knowledge to the solution of application problems and equations.
- Demonstrate knowledge of functions and relations including their graphs, algebra of functions, and composite functions.
- Demonstrate critical-thinking and problem -solving skills applicable to the material of this course.

Additional Public Education Goals:

- Students are prepared to enter post-secondary work-force certificate programs with no additional remediation in mathematics.
- Students experience a combination of class and student-directed lab times to stimulate the CTC course structure.
- Students manage their own learning through effective self-scheduling, self-monitoring, and effective peer study groups.
- Students will learn and practice note-taking, test-taking, and mathematics strategies for post-secondary success.

Course Materials recommended by Central Texas College:

- Martin-Gay textbook
- My Math Lab: Comes bundled with above text.

Final Exam & Grading Policy approved by Central Texas College

- Students will take the CTC Departmental Final Exam in each of the three Developmental Mathematics Levels: Pre-Algebra(Level I) , Beginning Algebra (Level II), and Intermediate Algebra (Level III)
- Students must achieve a grade of higher than 70% on each of the Levels final examinations. Students must achieve a 70% on the Level I before progressing into Level II material and Level II prior to working on Level III material.