

General Education Course Objectives and Learning Outcomes

Course Name: College Algebra

Course Number: MATH 1113

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Course Name: Mathematics

COMMON COURSE OBJECTIVES AND STUDENT LEARNING OUTCOMES THAT ARE OR WILL BE LISTED ON THE SYLLABUS OF EVERY SECTION OF THIS COURSE:

<i>Course objectives:</i>	MATH 1113 is designed to prepare students for higher level mathematics courses and to serve as the general education mathematic requirement. This course should also encourage students to think critically and apply quantitative reasoning.
<i>Student learning outcomes:</i>	<p>Upon satisfactory completion of the course, students will be able to:</p> <ul style="list-style-type: none"> - Demonstrate understanding and knowledge of properties of functions, which include domain and range, operations, compositions and inverses. - Recognize and differentiate characteristics of linear, absolute values, quadratic, higher-order polynomial, rational, radical, exponential, and logarithmic functions. - Solve equations and inequalities related to linear, absolute values, quadratic, higher-order polynomial, rational, radical, exponential, and logarithmic functions. - Use mathematical models to problem solve. - Apply graphing techniques of transformations to common algebraic functions. - Recognize, solve and apply systems of linear equations and matrices.

ADHE ACTS INFORMATION FOR THIS COURSE (IF APPROPRIATE)

<i>ACTS Course number:</i>	MATH 1103
<i>Copy the ACTS course objectives and learning outcomes:</i>	<p>General Description: Study of functions including, but not limited to, absolute value, quadratic, polynomial, rational, logarithmic, and exponential; systems of equations; and matrices.</p> <p>Expected Student Learning Outcomes: The student will demonstrate:</p> <ul style="list-style-type: none"> • The ability to perform and solve basic function operations and algebraic problems using appropriate vocabulary • Critical thinking to formulate decisions and problem solving based on reasoning and analysis • The appropriate use of technology to supplement and enhance conceptual understanding, visualization, and inquiry • The ability to synthesize information from a variety of sources to solve problems and interpret results

WHICH ATU GENERAL EDUCATION GOALS DOES THIS COURSE FULFILL? (NO MORE THAN TWO)

- Communicate effectively
 - o Written communication
 - o Oral communication
- Think critically**
- Develop ethical perspectives
 - o Diversity
 - o Empathy
 - o Leadership
- Apply scientific and quantitative reasoning**
 - o Scientific reasoning
 - Quantitative reasoning**

- Apply the value of the arts and humanities
- Practice civic engagement

**DESCRIPTION OF HOW THIS COURSE MEETS THE GENERAL EDUCATION GOALS CHOSEN ABOVE
(TO BE INCLUDED ON THE SYLLABUS OF EVERY SECTION OF THIS COURSE)**

MATH 1113 addresses two General Education goals which are to think critically and apply quantitative reasoning. The course requires students to demonstrate these goals through homework, quizzes, exams and projects.