# 1/4/2023

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 2 February 2023

Term and Year of Implementation: Spring 2023

**Course Title:** Survey of Algebra

**BRCC Course Rubric:** MATH 1203

**Previous Course Rubric**: MATH 100

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 3-0-3

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 45-0-45

**Louisiana Common Course Number:** CMAT 1203

**CIP Code:** 27.0101

**Course Description:**  Emphasis on applications involving solving equations and inequalities; function properties and graphs; linear, quadratic, polynomial, exponential and logarithmic functions. Designed for students pursuing non-STEM programs for which completion of three (3) to six (6) credit hours of General Education Mathematics/Analytical Reasoning is required. May also be appropriate for those who have successfully completed developmental math and wish to continue to build prerequisite skills before attempting College Algebra (MATH 1213).

**Prerequisites:** Appropriate mathematics placement test score

**Co-requisites:** None

**Suggested Enrollment Cap:** 35

**Learning Outcomes.** *Upon successful completion of this course, the students will be able to:*

1. Solve linear, quadratic, rational, radical, and systems of equations.

2. Solve linear and quadratic applications.

3. Graph linear and quadratic functions.

4. Factor polynomials.

5. Find the domain of a rational function.

**General Education Learning Outcome(s):** This course supports the development of competency in the following area(s). Students will:

Use processes and models to solve quantitative problems (General Education Competency: Quantitative and Symbolic Reasoning)

**Assessment Measures.** Assessment of all learning outcomes will be measured using the following methods:

1. Instructor-created exams and/or homework

2. A comprehensive final exam

**Information to be included on the Instructor’s Course Syllabi:**

* ***Disability Statement*:** Baton Rouge Community College seeks to meet the needs of its students in many ways. See the Office of Disability Services to receive suggestions for disability statements that should be included in each syllabus.
* ***Grading:*** The College grading policy should be included in the course syllabus. Any special practices should also go here. This should include the instructor’s and/or the department’s policy for make-up work. For example in a speech course, “Speeches not given on due date will receive no grade higher than a sixty” or “Make-up work will not be accepted after the last day of class”.
* ***Attendance Policy*:** Include the overall attendance policy of the college. Instructors may want to add additional information in individual syllabi to meet the needs of their courses.
* ***General Policies*:** Instructors’ policy on the use of things such as beepers and cell phones and/or hand held programmable calculators should be covered in this section.
* ***Cheating and Plagiarism*:** This must be included in all syllabi and should include the penalties for incidents in a given class. Students should have a clear idea of what constitutes cheating in a given course.
* ***Safety Concerns:*** In some courses, this may be a major issue. For example, “No student will be allowed in the lab without safety glasses”. General statements such as, “Items that may be harmful to one’s self or others should not be brought to class”.
* ***Library/ Learning Resources:*** Since the development of the total person is part of our mission, assignments in the library and/or the Learning Resources Center should be included to assist students in enhancing skills and in using resources. Students should be encouraged to use the library for reading enjoyment as part of lifelong learning.

**Expanded Course Outline:**

1: Equations and Inequalities

a) Solving Linear Equations

b) Problem Solving and Using Formulas

c) Applications of Algebra

d) Additional Application Problems

e) Solving Linear Inequalities

f) Solving Equations and Inequalities containing Absolute Value

2: Graphs and Functions

a) Graphs

b) The Slope-Intercept Form of a Linear Equation

c) The Point Slope Form of a Linear Equation

3: Systems of Equations

a) Solving Systems of Linear Equations in Two Variables

4: Rational Expressions and Equations

a) The Domains of Rational Functions

b) Addition and Subtraction of Rational Expressions

c) Solving Rational Equations

5: Roots, Radicals, and Complex Numbers

a) Roots and Radicals

b) Rational Exponents

c) Simplifying Radicals

d) Adding, Subtracting, and Multiplying Radicals

e) Dividing Radicals

f) Solving Radical Equations

g) Complex Numbers

6: Quadratic Functions

a) Solving Quadratic Equations by Factoring

b) Solving Quadratic Equations by Completing the Square

c) Solving Quadratic Equations by Using the Quadratic Formula

d) Quadratic Equation: Applications and Problem Solving