

# College Algebra

## MAT 172

**INSTRUCTOR:** Brian F. Kennedy

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### REQUIRED TEXT

*Precalculus: Graphs and Models* by Coburn and Herdlick, a graphing calculator is also required.

**CREDIT:** 3 credit hours

**PREREQUISITE:** MAT 137 or equivalent.

### COURSE DESCRIPTION

This course is a thorough and rigorous algebra course that strengthens the understanding of functions, their properties, multiple representations and operations. The function families studied include: polynomial, exponential, logarithmic, rational and radical. Students will also learn linear and quadratic inequalities, absolute value equations and inequalities, linear and non-linear systems.

### GRADING POLICY

A student will receive one of the following grades: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, I, W, P or Audit. Determination of that grade will be based on the following. Throughout the semester there will be four, 100 point exams (an exam will be announced at least one week prior to its administration). A comprehensive final exam worth 200 points. Quizzes and a writing project totaling 100 points. Your final grade will be computed by totaling all the points earned on the tests, quizzes, project and final exam then dividing that total by the 700 possible points.

Grade Equivalents:	A 93 - 100	B 83 - 86	C 73 - 76	D 63 - 66
	A- 90 - 92	B- 80 - 82	C- 70 - 72	D- 60 - 62
	B+ 87 - 89	C+ 77 - 79	D+ 67 - 69	F 59 or less

Quizzes will be take home and cannot be made up. No test can be made up without prior arrangement with the instructor. All makeup tests will take place during final exam week.

### DISABILITIES STATEMENT

If you have a learning or physical disability which may require classroom or test-taking modifications, please see me as soon as possible. If you have not already done so, please be sure to contact Matt Liscum (learning disabilities) and/or Elizabeth Wilcox (physical disabilities).

### ACADEMIC INTEGRITY POLICY

All students are expected to demonstrate their knowledge of the material on each quiz and test. Any student caught cheating will receive a zero on that test.

### CLASS CANCELANATION POLICY

If class is canceled by the instructor a notice will be placed on the classroom door. If time permits, the class will be notified by email.

Three Rivers is committed to ensuring that each member of our community has the opportunity to participate fully in the process of education free from acts of sexual misconduct, intimate partner violence and stalking. It is the intent of Three Rivers to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence.

## College Algebra MAT172

Date	Chapters (Sections) covered	Course Outcomes
8/28		1. Define Absolute value, find distances on the number line and on the coordinate plane.
8/30	1.3, 1.5	
9/4	2.1 - 2.2	2. Simplify expressions with rational exponents, write them in radical form, simplify, combine and rationalize radical expressions.
9/6	2.3 - 2.4	
9/11	2.5 - 2.6	3. Solve linear and quadratic inequalities, absolute value equations and inequalities, express answers in interval form.
9/13	Review	
9/18	Test #1 Chapters 1, 2	
9/20	Appendix A.6, 3.1	4. Perform operations on complex numbers, conjugates, represent complex numbers graphically.
9/25	3.1 - 3.2	
9/27	3.2 - 3.3	5. Perform operations on radical expressions, rational exponents and solve radical equations.
10/2	3.4 - 3.5	
10/4	3.5 - 3.6	6. Find the domain and range of functions, combine functions, identify odd and even functions, graph piece-wise defined functions, find compositions of functions, inverses and transformations of functions.
10/9	Review	
10/11	Test #2 Chapter 3	
10/18	Appendix A.5, 4.1	7. Find the characteristics of polynomial functions, solve polynomial equations, find zeroes and x-intercepts of polynomials, apply the fundamental theorem of algebra, the remainder and factor theorem and analyze end behavior.
10/23	4.1 - 4.2	
10/25	4.2 - 4.3	
10/30	4.4 - 4.5	
11/1	4.5 - 4.6	8. Graph rational functions, find vertical, horizontal and slant asymptotes.
11/6	Review	
11/8	Test #3 Chapter 4	9. Graph exponential and logarithmic functions, use properties of exponentials and logarithms, solve exponential and logarithmic equations.
11/13	5.1 - 5.2	
11/15	5.3 - 5.4	
11/20	5.5 - 5.6	10. Solve systems of linear equations in several variables.
11/27	5.6 - 5.7	
11/29	9.1 - 9.2	
12/4	Review	
12/6	Test #4 Chapters 5, 9	
12/11	Review	
12/13	Final Exam	

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on campus, or fears for their safety from a threat while on campus please contact Maria Krug, the title IX Coordinator (860.215.9205 [mkrug@trcc.commnet.edu](mailto:mkrug@trcc.commnet.edu)).

All students are required to maintain an online learning portfolio in Digication that uses the college template.