

Instructor: Keith Foster · Office: WCC 202 and SC 327 · 479.619.4380 · gkfoster@nwacc.edu · <http://gkfoster.com>

Course Objectives:

1. To develop proficiency in algebra by:
 - a. working with equations and inequalities
 - b. understanding functions and their graphs
 - c. understanding exponential and log functions and their applications
 - d. using matrices and matrix operations
2. To develop problem solving skills

Course Description: An overview of the fundamental concepts of algebra with an emphasis on functions and equation solving. Functions and equations covered will include (but are not limited to) absolute value, square root, polynomial, rational, exponential, and logarithmic. Systems of linear equations and inequalities as well as quadratic inequalities will also be covered. Technology will be used throughout the course to supplement and enhance understanding.

Required Textbook: *College Algebra with Intermediate Algebra - A Blended Course* by Beecher, Penna, Johnson, Bittinger, Pearson, 1st Edition. This textbook is available in electronic form within *myLab Math* (MLM). You also have the option to purchase a hard copy of the textbook.

Prerequisites: A grade of “C” or better in Intermediate Algebra (MATH 0103); a score of 24 - 28 on the math portion of the ACT; or an appropriate placement score. A good understanding of the concepts from Intermediate Algebra is expected.

Grading for this Course: The numerical grade comes from the following sources:

- + Homework: All homework scores (except the optional Review sections) will count towards your Homework grade and be scaled out of 50 points.
 - + Quizzes: Periodical quizzes will be graded and scaled to 100 points.
 - + Unit Exams: There will be two unit exams, each worth 100 points (total: 200 points)
 - + Final Exam: The *final exam* is worth 200 points and will be comprehensive.
- Percentage score will be this numerical grade out of 550 points. See the General Outline for letter grade percentage breakdown.

Homework/Discussion/Quiz Policy: You are *expected* to work all homework problems assigned by the due date listed on *myLab Math*. Since this is a three credit course and is only meets for 8 week class, you are expected to spend around twelve hours each week on homework and general overview of topics being covered (spread this time throughout the week). This is considered the norm for a college level course meeting for only half a semester. Homework results are recorded within *myLab Math*. Once the exam period for those sections is completed, the homework assignments for those sections will no longer be available. Therefore, it is very important to organize yourself so that you will received the most credit for these assignments. Discussions will be posted to Canvas periodically, and you are required to participate. Quizzes will be posted periodically on *myLab Math*. You will have a few attempts on each quiz, before the due date. No partial credit is given on quizzes.

Exam Policy: See the Exam Policy sheet that was emailed to you and is also located on my website.

Makeup Policy: There will be no make ups on exams or quizzes. I will drop some of the quizzes, depending on the number given. All exams will count, since you will have a good length of time to complete each exam and that each exam can be taken a second time. Given the amount of time allowed to complete assignments, quizzes, and exams, there is no reason to miss any exam or quiz, or not complete any homework assignment.

Participation Policy: Participation is expected, and lack of participation will invariably prove detrimental to your grade and your learning experience. Regardless of the reason for not being able to access *myLab Math*, you will be responsible for any missed assignments, material, and announcements. Do NOT wait until the last minute to complete assignments or quizzes, or take any exam.

Available Tutoring: Tutoring at the Math Center is offered in room SC 344A. Check their website at <https://www.nwacc.edu/studentsuccess/mathcenter/> for open hours. There are also many online sources (YouTube, etc). And don't forget, you can contact me during my office hours to get help or email me anytime.

Methods of Instruction: Since this is an OnLine course, instruction will take place through readings and completion of assigned problems, which includes Multimedia requirements. I am available during my office hours in person, if you are on campus, or by email anytime. When emailing, *please* state which class you are in. All information regarding this course, including notices on Exam and Quizzes, will be emailed to your NWACC account, so check your NWACC email *daily* while in this class. Canvas is not used for this class since we use *myLab Math*.

Course Schedule: Below is a week-by-week breakdown of course coverage. Schedule is subject to change and email notice will be given if that happens.

Week	Dates	Coverage
1	March 11 – 15	<i>Course Intro (via email)</i> 2.2 - Functions and Graphs 2.3 - Finding Domain and Range 2.4 - The Algebra of Functions 2.5 - Linear Functions: Graphs and Slope
	March 18 – 22	<i>Spring Break</i>
2	March 25 – 29	2.6 - More on Graphing Linear Equations 2.7 - Finding Equations of Lines; Applications 3.7 - Systems of Inequalities and Linear Programming 5.4 - Complex Rational Expressions 5.5 - Solving Rational Equations
3	April 1 – 5	6.1 - Radical Expressions and Functions 6.6 - Solving Radical Equations 6.8 - Increasing, Decreasing, and Piecewise Functions; Applications 7.2 - Transformations
4	April 8 – 12	<i>Exam #1 (Section 2.2 through Section 7.2)</i> 7.3 - The Complex Numbers 7.4 - Quadratic Equations, Functions, Zeros, and Models 7.5 - Analyzing Graphs of Quadratic Functions
5	April 15 – 19	8.1 - Polynomial Functions and Models 8.2 - Graphing Polynomial Functions 8.3 - Polynomial Division; The Remainder Theorem and the Factor Theorem 8.4 - Theorems about Zeros of Polynomial Functions 8.5 - Rational Functions 8.6 - Polynomial Inequalities and Rational Inequalities 9.1 - The Composition of Functions 9.2 - Inverse Functions
6	April 22 – 26	9.3 - Exponential Functions and Graphs 9.4 - Logarithmic Functions and Graphs 9.5 - Properties of Logarithmic Functions 9.6 - Solving Exponential Equations and Logarithmic Equations 9.7 - Applications and Models: Growth and Decay; Compound Interest
7	Apr 29 – May 3	10.1 - Matrices and Systems of Equations <i>Exam #2 (Section 7.3 through Section 10.1)</i>
8	May 6 – 10 Finals Week	<i>Final Exam – taken by Thursday, May 9</i>