

– about me and this course –

Instructor: Keith Foster · Professor of Mathematics · MS Mathematics, U of A

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Office Hours and Email: My office is in the Student Center, room SC 327. Office Hours are:

Monday 2:00 – 3:00; 4:30 – 5:00	Tuesday 9:00 – 10:00; 12:00 – 1:00
Wednesday 10:00 – 11:00; 1:00 – 3:00; 4:30 – 5:00	Thursday 9:00 – 10:00; 12:00 – 1:00
No Friday office hours	

E-mail is the best way to reach me outside office hour times since I may not be in the office. I will reply to your email within 24 hours. When you email me, please include the course name in the subject (i.e, subject: “CA-WEve”) so I can best answer your email. Also, email from your NWACC email account.

Course Objectives:

1. To develop proficiency in algebra by:
 - a. solve equations and inequalities including quadratic equations, radical equations, rational equations, exponential equations, logarithmic equations, systems of linear equations with matrices, quadratic inequalities, and systems of inequalities
 - b. solve application problems using linear, quadratic, exponential, and systems of equations
 - c. analyze functions and/or their graphs including transformations of functions, quadratic functions, rational functions, absolute value functions, exponential functions, logarithmic functions, and polynomial functions
 - d. perform function operations including arithmetic operations, difference quotient, composition of functions, inverse functions, domain and range of functions, and function values
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*, Beecher, Penna, Johnson & Bittinger, Pearson Education, 2017. This textbook is available in electronic form within Pearson's *myLab Math* (MLM). You also have the option to purchase a hard copy of the textbook.

Prerequisites/Corequisite:

Corequisite: MATH 0112 (Foundations of College Algebra) - OR -

Prerequisite: MATH 0103 (Intermediate Algebra) or MATH 0214 (Foundations of Algebra: STEM) with a grade of “C” or better – OR - appropriate placement test scores.

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

- ✦ **Unit Exams:** There will be three unit exams, each worth 100 points (total: 300 points)
- ✦ **Homework:** All homework scores (except the 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.
- ✦ **Final Exam:** The *final exam* is worth 200 points and will be comprehensive.

Percentage score will be this numerical grade out of 650 points. A letter grade will be assigned based on the standard percentage scale:

A 90-100

B 80-89.9

C 70-79.9

D 60-69.9

F below 60

FP failure due to non-attendance

Homework/Discussion Policy: You are *expected* to work all homework problems assigned by the due date listed on *myLab Math (MLM)*. Since this is a three credit course, you are expected to spend around *six hours each week* on homework and general overview of topics being covered (spread this time throughout each week). This is considered the norm for a college level course. Homework results are recorded within *MLM*. It is very important to organize yourself so that you will receive the most credit for these assignments.

Quiz Policy: Quizzes will be posted periodically on *MLM*. You will have a few attempts on each, before the due date. No partial credit is given on quizzes. Quiz score will be shown after each attempt, but the results can only be review after the due date. The grade for each quiz is the best score of all attempts for that quiz. There may be in-class quizzes given during the course, as well.

Exam Policy: All exams will be taken on *myLab Math (MLM)* during normal class time. Notes will *not* be allowed on exams. Only the TI 30XIIS calculator is permitted on the Exams. Once the exam has started, you cannot leave your computer for *any* reason.

You are *required* to show all work for each problem on the provided Test Packet. By not showing work, you *may* receive a zero for that problem if it is clear that work should be shown. Also, I will add partial credit to each exam based on your work shown. Therefore, the better you organize your work, the easier for me to give partial credit.

Calculator Use: Students can only use the TI-30XIIS calculator for this course. All others, including graphing calculators, are *not* permitted. Please be aware that supporting work for any of the processes may be required to earn any credit on any exam. Answers without correct supporting work may earn reduced credit or no credit at all. Remember, the use of a calculator should enhance the mathematics, not replace it. The process of obtaining a solution is many times more important for our purposes than the solution itself. I will grade your work as well as your solutions.

– other policies and statements –

Makeup Policy: There will be no make ups on exams, quizzes or homework. I may drop some of the quizzes, depending on the number given. The lowest exam score, or a missed exam, may be replaced with the final exam percent score (if higher, of course). Since you will have a good length of time to complete each exam, if you miss taking an exam, you will receive a zero for that exam. Given the amount of time allowed to complete exams, quizzes and assignments, there is *no reason* to miss any exam, 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 *Person's myLab Math (MLM)*, you will be responsible for any missed assignments, material and announcements. *Check your NWACC email daily.*

Attendance is determined on a twice per week basics, for first half of our class meeting, then for the second half. Attendance is recorded in Quickly Attendance within Canvas.

Non-Participation/Census Date Policy: Students who do not meaningfully participate in the course by the state-mandated census date may be withdrawn from the course. Students withdrawn for non-participation are *not eligible for reinstatement* and will receive an 80% refund in accordance with institutional policy.

To be considered *participating* and avoid withdrawal, students must *attempt at least one graded activity* before the Census date. An attempt is defined as submitting work that earns a *score greater than zero*. Graded activities include any assignment (HW, quiz, or exam) with a posted deadline (official or unofficial).

Red-Letter Days: All special dates related to this course can be found on the course outline, exam policy document and/or on ALEKS (exams dates, due dates, etc.), if used. Dates related to NWACC policies (drop dates including Administrative, final week dates, etc.) can be found on the NWACC Calendar page. It is the responsibility of each student to know where to find these dates. NWACC Calendar link:
<https://www.nwacc.edu/enrollment/records/importantacademicdates.aspx>.

Academic Dishonesty Policy: For equality purposes, your instructor reserves the right to clear your calculator of unapproved formulas and programs before each exam. No calculator with a CAS (Computer Algebra System) such as TI-89, TI-92, TI-Voyage or comparable utility is allowed in any class. The attempted use of a prohibited calculator or program is academic dishonesty and will result in a score of 0 with no possibility of the score being dropped or replaced. This also applies to all other forms of academic dishonesty including, but not limited to, using formula sheets not provided by instructor or any notes, leaving the room and returning during an exam, copying from someone else's paper, or allowing someone to copy your paper. Further action will be taken according to the policy on Academic Honesty in the current College Catalog.

– more general policies –

Inclement Weather Policy: Decisions on college status during inclement weather are made by the President or the President's designee. Such decisions will be posted on the college web site, at <http://www.nwacc.edu>. The decision might be to move Face-to-Face classes to Remote Streaming (details will be emailed at that time).

Artificial Intelligence Policy: Artificial intelligence (AI) is a rapidly developing field that has many applications and implications for mathematics and education. AI tools can generate text, images, code, and other forms of content based on user input. Some examples of AI tools are OpenAI, Google Workspace, and Microsoft Bing (Copilot).

- The use of AI tools in this course is not prohibited in assisting you on HW Problems, to gain a better understanding of how the problem should be approached. You should use AI tools only as a study aid, not as a substitute for your own work, not allowing you to gain understanding. AI tools should never be used on quizzes, since you are testing your understanding in preparation for exams.

If you have any questions or concerns about the use of AI tools in this course, please contact me. I reserve the right to modify this policy at any time, and to take appropriate actions in case of any violations. By enrolling in this course, you agree to abide by this policy and the academic integrity policy and the student code of conduct.

Available Tutoring: Tutoring at the Math Center is offered in room BH 1217. Check their website at <https://www.nwacc.edu/studentssuccess/mathcenter/> for open hours. There are also many online sources (youTube, etc). And don't forget, you can stop by during any of my office hours to get help or email me *anytime*.

Methods of Instruction: Instruction will take place through lectures, readings and working the assigned problems.

Canvas Limitations: Just a reminder, we have limited use for Canvas. However, assignments will be posted on Canvas but can be access directly through *myLab Math (MLM)*. All course information will be emailed to your NWACC email account or given during class. The most up-to-date grades will be in *MLM*. Grades will be moved to Canvas, but *MLM* has the official grades.

Class Continuation Plan: NWACC reserves the right to enact a class continuation plan in the event of class cancellations due to weather or other emergency events. The instructor will maintain continuity using *MLM*, Canvas or other alternate means as determined by the instructor. You will be contacted via your established communications channels with instructions. Students will be expected to continue with assignments.

If normal means to contact you is interrupted, check for notes on the course webpage.

Other Resources: Free tutoring is available at the Math Center (BH 1217). Other online resources, such as YouTube videos and many websites (use Google to find) can be useful. Also, don't forget to stop by during office hours for any help.

Course Issues: Please contact me first with any questions or concerns with the class. After discussing any concerns with me, if you wish to discuss it further, please contact the following person from the math department: Michael Duffy, Jr at m3duffyjr@nwacc.edu.

NWACC General Policies Link: For additional college wide policies, go to the following website: <https://nwacc.instructure.com/courses/854631/pages/syllabus-policies>. You're also responsible for these policies.

Course Schedule: Below is a week-by-week breakdown of course coverage. Schedule is subject to change with email notice given if that were to happen. *Remember: Check your NWACC email daily!!*

Week	Dates	Coverage
1	August 19	<i>Course Intro (via email)</i> 2.2 - Functions and Graphs 2.3 - Finding Domain and Range 2.4 - The Algebra of Functions
2	August 26	2.5 - Linear Functions: Graphs and Slope 2.6 - More on Graphing Linear Equations 2.7 - Finding Equations of Lines; Applications
3	September 2	3.7 - Systems of Inequalities 5.4 - Complex Rational Expressions (Difference Quotients) 5.5 - Solving Rational Equations
4	September 9	<i>Exam #1 (Section 2.2 through Section 5.5)</i> 6.1 - Radical Expressions and Functions 6.6 - Solving Radical Equations
5	September 16	6.8 - Increasing, Decreasing and Piecewise Functions; Applications 7.2 - Transformations 7.3 - The Complex Numbers
6	September 23	7.4 - Quadratic Equations, Functions, Zeros and Models 7.5 - Analyzing Graphs of Quadratic Functions
7	September 30	8.1 - Polynomial Functions and Models 8.2 - Graphing Polynomial Functions
8	October 7	8.3 - Polynomial Division; The Remainder Theorem and the Factor Theorem 8.4 - Theorems about Zeros of Polynomial Functions
9	October 14	<i>Exam #2 (Section 7.2 through Section 8.4)</i> 8.5 - Rational Functions
10	October 21	8.6 - Polynomial Inequalities 9.1 - The Composition of Functions 9.2 - Inverse Functions
11	October 28	9.3 - Exponential Functions and Graphs 9.4 - Logarithmic Functions and Graphs
12	November 4	9.5 - Properties of Logarithmic Functions 9.6 - Solving Exponential Equations and Logarithmic Equations
13	November 11	9.7 - Applications and Models: Growth and Decay; Compound Interest 10.1 - Matrices and Systems of Equations
14	November 18	<i>Exam #3 (Section 8.5 through Section 10.1)</i>
	November 23 – 27	Thanksgiving Break
15	December 2	<i>Catch up</i> <i>Review for Final Exam</i>
	December 7 – 11 Finals Week	Final Exam – Wednesday, December 9, 6:00 – 8:00