

# Math 95: Intermediate Algebra

Fall 2016 CRN: 16346

Instructor: Tammy Nezol

Office: Anstett 198C

**Office Hours: TBA**

Class Meeting Times: MTuWF 2-2:50 Fenton 117

## Required Materials:

- Textbook: Beginning and Intermediate Algebra, 4th Edition Miller, O'Neill, Hyde. Note: Your purchase of ALeKS comes with an eText already for this material. You can purchase an ALeKS code from the bookstore or online for \$100 (52 week code) or \$75 (11 week code). You may arrange for a printed copy of the text from ALeKS if you desire a hard copy.
- ALeKS is required. ALeKS is our online homework system. More information about ALeKS is on Canvas and will be given in class.
- Canvas (<http://canvas.uoregon.edu>) will be our main place for announcements, grades, etc. Check Canvas daily for updates.
- pencils (exams and quizzes must be done in pencil)
- Scientific Calculator (may be your phone as calculators will not be used on quizzes or exams)

## Course Outcomes:

The successful math 95 student can:

solve linear equations in two variables

solve word problems involving linear equations and systems of linear equations

interpret the slope and points of a line in the context of a word problem

accurately and efficiently perform calculations with real numbers including fractions, decimals, signed numbers, absolute value, etc.

identify equations as linear, exponential, or polynomial

factor quadratic and other polynomial expressions including when the leading coefficient is not 1.

solve quadratic equations by factoring, using the square root property, or using the quadratic formula

perform operations involving polynomial and rational expressions

solve equations containing rational expressions

simplify and perform operations involving radicals/rational exponents/polynomials

solve equations involving radical expressions

apply the rule of functions including accurately applying function notation

find the domain and range of a function from its graph

find the largest possible domain of a linear, quadratic, square root, or rational function from its equation

solve compound inequalities

identify the vertex and intercepts of a quadratic function (in vertex form or standard form)

solve word problems involving quadratic equations

recognize exponential vs. linear modeling. (The student knows linear means increasing by a constant amount while exponential means increasing by the same percentage.)

solve absolute value equations

solve simple absolute value inequalities by finding the  $x$ -intercepts

solve systems of non-linear equations involving quadratic and linear equations.

### **Assignments:**

- ALeKS due dates will be given in class and sometimes on Canvas. Your homework score is not just the score you receive on ALeKS but also for completing objectives before the due date.

Note: ALeKS will move you to the next objective once the assignment is past-due. In order to earn 100% (and to know the material necessary for quizzes/exams) you will need go back and complete the objective. When you finish a past-due objective you should email me the topic name, your old score, and your new score (at least 80%) and I will give you a weighted average of the two scores.

- Worksheets will be completed in class. Grades are based mostly on attendance and completion.
- Quizzes will take place every Friday or as announced.
- There will be two midterms and one final. Midterms are tentatively scheduled for Weeks 4 and 8. The final is Monday, December 5 at 5:00. No early finals will be given.

### **Class Policies and Information:**

- Students are expected to arrive on time and stay through class. Attendance is mandatory and may affect your grade. Attendance may be taken via role call or via mini-quizzes. Tardiness will result in a lower attendance score for that day.
- Be respectful of yourself and others. Be kind.
- Do not use cell phones in class. I reserve the right to mark you as absent when I see you texting/using your cell phone. It's very distracting to both me and your classmates.
- In-class worksheets are graded on completion and attendance. It's very important you attend classes as we will go deeper than ALeKS does and this depth will be on quizzes/exams.
- **Instead of quiz makeups, I assume life happens for everyone and drop the lowest two quiz scores.** I do this to take into account illness, weddings, funerals, injuries, etc.
- Office hours are drop-in. No appointment is needed during office hours. You may come and ask homework questions, ALeKS questions, conceptual questions, etc. Please come by! It can make a huge difference.

- Calculators may occasionally be used in class but will not be allowed on quizzes or exams. Homework should mostly be completed without calculators.

### **Grading:**

This is a pass/no pass class. In order to pass you must earn a C- in the course and earn at least a D- on the final exam.

A possible weighing of grades: 30% final, 40% midterms (20% each), 30% quizzes, homework, attendance (not evenly weighted)

I reserve the right to alter these weights as necessary to take into account participation, improvement, etc.

### **Academic Conduct:**

Final work turned in must be your own. You are not allowed unauthorized help on quizzes or exams. For more information on what constitutes academic misconduct, please see the University of Oregon Student Conduct Code. <https://uodos.uoregon.edu/StudentConductandCommunityStandards.aspx>

### **Accessible Education Center:**

The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center (formerly Disability Services) in 164 Oregon Hall at 541-346-1155 or [uoaec@uoregon.edu](mailto:uoaec@uoregon.edu) .

### **Getting Help**

Campus offers a lot of places for support:

Office hourse. You don't need an appointment and I'm happy to help!

The Teaching Learning Center has a drop-in math lab on the 4th floor of the Knight Library.

Fenton Hall Math library offers some math tutoring labs.

## **Tentative Schedule:**

This is a very tentative schedule and is likely to change:

Week 1: Review Linear Equations with an emphasis on modeling, lots of interpreting of the slope, intercepts, points/Quadratics and factoring

Week 2: Factoring/system of linear equations, system of equations with both lines and quadratics, recognizing exponential vs. linear vs. quadratic equations with modeling

Week 3: Catch-up, Rational expressions and equations

Week 4: Continue Rational expressions and equations

Week 5: Introduction to function notation/domain and range

Week 6: Absolute value equations, compound inequalities

Week 7: Absolute value inequalities, rational exponents, radical expressions

Week 8: Radical equations, catch-up, quadratics

Week 9: Quadratics

Week 10: Catch-up/Review