Instructor: Kyla Pohl

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Office Hours:

Monday, Tuesday, Wednesday 9:45am - 10:45am and by appointment Fenton Hall Atrium

Class Meeting Time: Mon, Tues, Wed, Fri, 11:00am-11:50am, Straub Hall 154

Learning Assistant Information: This course's Class Encore Learning Assistant is [redacted]. All Learning Assistant office hours are listed on the schedule of Math 101 Class Encore Study Hours.

Learning Outcomes: A successful student can...

- simplify and evaluate algebraic expressions,
- solve and simplify linear equations in one or two variables,
- interpret a point on a graph (esp. a line) in the context of a word problem,
- interpret constants in the equation of a line in the context of a word problem,
- graph linear equations in two variables,
- determine the intercepts of a given line whether from a graph, table, or equation,
- solve systems of equations,
- set up and solve a variety of real-world problems based on exponential equations, linear equations or systems of equations (using substitution),
- manipulate exponential expressions,
- solve quadratic equations of the form $x^2 + bx + c = 0$ and $a(x h)^2 + k = 0$ exactly,
- model formulas for functions by finding values of parameters, given data,
- determine from a table, graph, or equation whether or not a relationship between between two variables is linear or exponential,
- write an equation defining a relationship between variables in a piecewise manner,
- interpret the result of mathematical processes in a non-mathematical context,
- express written descriptions between variables as the graph, table, or formula for that relationship,
- estimate trend lines/curves for regression. Interpret the residual at a given point,
- successfully use technology such as Excel, Google Sheets, Desmos, and/or Wolfram Alpha in application to the objectives,
- factor quadratic and other polynomial equations using the greatest common factor,
- identify solutions to systems of equation as either a line, a point, or no intersection (parallel lines),

- perform operations involving polynomial and "linear-over-linear" rational expressions,
- solve equations containing "linear-over-linear" rational expressions,
- simplify and perform operations involving radicals and polynomials,
- solve systems of non-linear equations involving quadratic and linear equations,
- solve absolute value equations of the form |ax + b| = c,
- apply the rule of functions including accurately applying function notation of the form f(a) = b for given values of a and b (not symbolic manipulation),
- Create tables and interpret points from multilinear equations such as z = 0.2x + 3y + 4.

Prerequisite Objectives: The following learning objectives are prerequisite to the course and will be tested exclusively through adaptive homework or their inclusion as part of another objective listed above. These prerequisite objectives include the ability to...

- accurately use the order of operations in order to reduce an expression, including those with absolute values, signed numbers, fractions, and/or decimals,
- add, subtract, multiply, and divide fractions and decimals,
- explain when and why to use common denominators when performing operations on fractions,
- identify whether a number is a whole number, an integer, or a real number,
- accurately and efficiently perform calculations with real numbers including fractions, decimals, signed numbers, absolute value, etc.

Course Materials:

- <u>Text:</u> Foundations of Algebra and Mathematical Modeling
 - An electronic edition of this text is available for free on the Canvas home page for this course.
 - This course covers most of Chapters 1–3. Students are expected to enter the course with the content of Chapter 0 already mastered.
- <u>Calculator</u>: A scientific calculator (e.g. anything in the TI-30X series) is recommended for this course. Graphing calculators will **not** be permitted on exams. If you have a question about whether your calculator will be permitted on an exam, feel free to ask me individually.
- Laptop/Tablet: This course makes use of online tools such as ALeKS and Desmos which require a laptop or tablet. Chromebooks and laptops are available for students to borrow in the EMU.

Requirements for Passing this Course: There are three criteria that need to be met to pass this course. In order to pass this course, students must

- 1. receive a letter grade of C- or higher,
- 2. complete at least 85% of the topics in the ALeKS system, and
- 3. have a passing score on the final exam OR have a passing average on the two midterm exams.

Students that fail to meet all three of these benchmarks will not receive a passing grade in this course.

Grade Categories and Distribution: We will used a fixed grading scheme for the course.

Category	Portion of Course Grade
Reading Guides	5%
Projects	25%
Desmos Activities	15%
ALeKS	10%
Quizzes	5%
Midterm Exam 1	10%
Midterm Exam 2	10%
Final Exam	20%

Reading Guides: Students will be responsible for reading the textbook ahead of each week. In accordance with that, reading guides will be posted to Canvas each Friday due before class every Monday. Reading guides will encourage engagement while reading as well as check understanding. They will be graded for completion, but answers will be checked for accuracy when relevant.

Projects: Each Tuesday in class students will engage in small group work on weekly projects. These projects are preceded by "prework" on Monday, due before class starts on Tuesday. Projects can be completed during or after class, to be turned in on or before the following Friday at class time. They will be graded for correctness, clarity, and completion. Thus it is necessary to show your thought processes in order to receive credit. Each student's lowest prework and project score will be dropped at the end of the term.

Desmos Activities: Desmos is an online graphing calculator. Each week on Friday we will be doing activities in Desmos. Please bring a laptop or tablet to class to be able to participate in this portion of the course. Desmos activities will be due on the following Monday at 10pm.

ALeKS: This is online homework learned outside the classroom for the prerequisite material. It is focused on procedure. You must have completed at least 85% of the 122 topics in ALeKS in order to pass this course. If you don't finish your ALeKS work by the end of the week, ALeKS will let you catch back up until the end of Week 9. You must do the Week 1, Week 4, and Week 8 Knowledge Checks for your score to count.

Quizzes: Quizzes will be administered once weekly on Tuesdays, covering the previous week's content. Quizzes will be short and allow as many attempts as you would like. The main purpose of quizzes are to allow you to assess your knowledge of the course.

Exams: There are two midterms and one final exam in this course. Exams will be cumulative and must be taken during the scheduled class time. There are no make-up exams for this course; however, each student's lowest midterm grade will be replaced with the final exam score should it be higher.

Midterm Exam 1 :	October 27
Midterm Exam 2 :	November 17
Final Exam:	Dec 5, 17:00, location TBA

Midterm exam dates are subject to change.

Grading Scheme: The course will be graded according to this scheme. The top and bottom 2% of each letter grade will be plus and minus, respectively. See this document for further specificity of grades.

Percentage	Letter Grade		
90% to $100%$	А		
80% to $90%$	В		
70% to $80%$	\mathbf{C}		
60% to $70%$	D		
0% to $60%$	\mathbf{F}		

Important Dates:

September 30	Last day to drop this course $(100\%$ refund, no W recorded)
October 2	Last day to switch to or from audit
November 12	Last day to change grading option for this course

See the UO course page for other Fall 2023 deadlines.

Late Work Policy: Late work will not be accepted in this course. This includes ALeKS assignments, project packets, Desmos activities etc. Exams must be submitted within the allotted time to receive any credit. Please carefully keep track of due dates/times to avoid losing credit for your work. Due to the university's "reason-neutral" policy effective Fall 2022, I cannot make exceptions for students based on differing circumstances besides university sponsored events, religious exemptions, military service, AEC accommodations, and Dean of Students emergency academic notifications. Students who participate

in university-sponsored activities that might cause them to miss class are responsible for providing documentation signed by a university employee verifying their participation in the activity and listing the dates that they might miss class. This should be done during week one of the term. Please alert me immediately if you encounter an extraordinary circumstance that requires alterations to this policy.

Attendance Policy: Outside of exam days, attendance is not required in this course. All assignments, activities, and quizzes will be available for retrieval and submission on Canvas and WebWork. Attendance is required for all midterm exams for this course and for the final exam.

Accessibility: For students who are currently registered with the Accessible Education Center for a documented disability, please present your paperwork to me during the first week of the term (or earlier) so that we can design a plan for you. Those of you with a disability (or who might) but are not registered with AEC should contact them as soon as possible. It is much more likely that measures can be taken to provide adequate special accommodation if the organization is done through AEC. I have attempted to provide documents that are accessible. Please let me know if you need additional accommodations.

Student Conduct: I plan to treat every student with respect and, as such, expect my students to show respect for me and for the class as a whole. Violations of the student conduct code results in the incident being included on your student conduct record as well as academic sanctions such as a failing grade on any coursework related to the violation or simply a failing grade in the course. The University of Oregon requires all instances of cheating be reported, no matter how small. Cheating includes, but is not limited to:

- Looking at another student's exam during a test,
- Copying the work of another person (student or otherwise) and submitting it as your own,
- Using any materials except those explicitly approved during a test-taking situation,
- Resubmitting graded work that was altered after being returned,
- Cooperating on work for the course (including exams) without being explicitly allowed to do so.

For a list of other descriptions of cheating, see the Student Conduct Code.

Expected Classroom Behavior: Students are expected to behave respectfully toward each other and toward the instructor during class time. In the wake of the Covid-19 pandemic, this includes not attending class when showing signs of illness. Use of laptops and phones is permitted in this class; however, please choose a seat in the back of the room if you plan to use a laptop during class time (unless on Friday) as to not distract other students. Similarly, please be sure that your phone is on silent during class time. Please let me know if you feel that you are not being respected at any time during the course of this term in my class.

Prohibited Discrimination and Harassment Reporting: I am a student-directed employee. For information about my reporting obligations as an employee, please see Employee Reporting Obligations. Students experiencing any form of prohibited discrimination or harassment, including sex or gender based violence, may seek information on safe.uoregon.edu, respect.uoregon.edu, titleix.uoregon.edu, or aaeo.uoregon.edu or contact the non-confidential Title IX office (541-346-8136), AAEO office (541-346-3123), or Dean of Students offices (541-346-3216), or call the 24-7 hotline 541-346-SAFE for help. I am also a mandatory reporter of child abuse. Please find more information at Mandatory Reporting of Child Abuse and Neglect.

Student Resources and Support: The following resources are available to you as a student.

- University Health Services or call (541) 346-2770
- University Counseling Center or call (541) 346-3277 or (541) 346-3227 (after hrs.)
- Academic Advising or call (541) 346-3211
- Dean of Students or call (541) 346-3216
- Basic Needs assistance at UO

Weekly Schedule: This is what an average week will look like in this course.

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
Due Before Class	Reading Guide	Prework			
During Class	Lecture/Prework	Lecture/Project	Lecture/Project		Desmos Activity
Due at Midnight	Desmos Activity	Quiz			Project/ALeKS

Suggestions for Successful Study:

- Don't get behind in your reading, homework, etc.
- Participate in class, ask questions, and make use of my office hours.
- Form a study group with others in the class. Work together on homework but everyone must join in and submit their own work.
- Read ahead in the book. A little bit of preparation will help the material sink in quicker during class and allow you to ask meaningful questions.
- Keep all your old exams and worksheets. You'll find them useful when you're studying for tests.

Showing Work:

To get full credit for homework and (especially) on exams, it will be necessary to show work. This is what lets me know that you understand the process, and assign partial credit where it is due. It will be helpful to you as well, as showing your work means you'll be making less mistakes.

Need help?

- You should make use of my office hours whenever possible. Keep in mind that I may ask you questions about how you started the problems and encourage you to contribute to solving it, rather than simply handing you the result. Always feel free to reach out to me via email with questions, but note that I will not always be available to answer questions immediately.
- Class Encore Learning Assistants are a great resource for help as well. Class Encore Study Hours are posted on Canvas.
- Tutoring is another option for getting help in this course. Both the Knight Library and the Math Library have free tutoring available. Links to more information about these resources can be found on the Canvas page for this course.