

Instructor: Vikki Maurer

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Course: This course explores relations and linear, quadratic, exponential, polynomial, rational and logarithmic functions. Includes theory of equations, matrices and determinants. Prerequisite: C or better in MTH 95, Intermediate Algebra, or equivalent. Upon completion of the course, the student will be able to:

1. Interpret graphical information, such as identifying types of functions, translations, inverses, intercepts, and asymptotes.
2. Solve a variety of symbolic equations and inequalities, such as rational, absolute value, exponential, radical, logarithmic, and linear systems.
3. Construct appropriate models for real world problems, such as fitting an algebraic function model to a set of data, and system of linear equations.

Required for this class:

- 11-week ALEKS 360 paid access code. This code will give you access to the ebook and the adaptive course software. Through our ALEKS class you have the option to order a loose leaf version of the textbook for an additional \$25. However a paper version of the book is not required.
- Scientific Calculator. We use only scientific calculators for exams.
- Access to a graphing calculator, a graphing calculator app on your phone or Desmos (for computer or tablet use). There is no need to buy a graphing calculator.

Student Hours: Because this is an internet class there will be opportunities for you to meet with me online in a Zoom meeting room.

Course Requirements:

20% ALEKS Weekly Homework Objectives and exam Reviews
5% ALEKS Whole Pie Percentage
15% Written Assignments
40% Midterm Exams 1 and 2
20% Final Exam

Course Grades: Final course grades will follow the standard cut-off A 90%, B 80%, C 70%, D 60% and below 60% earns an F grade. You must earn at least a C grade in Math 111 in order to move on to higher math classes for which Math 111 is a prerequisite. **All of your course grades will be kept in the ALEKS gradebook only.**

Incomplete Grades: An incomplete grade may be issued for a student who is earning a grade of C or better in the course, but who has failed to complete the final exam. Any student seeking an incomplete must discuss this option with the instructor and work out an agreement to finish the requirement for the course by a specific date.

Participation: The biggest reason why students fail to complete a math class is due to poor participation. If you put off working on math during the week, and you wait until the deadline, you will find it very difficult to finish the work and get caught up. Plan to spend at least one or two hours every day working on college algebra. If you are someone who finds it hard to get motivated to do work then this is not the class for you. It will take daily discipline to complete college algebra online.

ALEKS Adaptive Homework Platform and Ebook:

You will complete the majority of your assigned work through an online and adaptive program called ALEKS. You are required to purchase the ALEKS 360 access code through the bookstore or through the ALEKS website. It is through ALEKS where you will have access to an ebook and any videos or tutorials the ebook provides. It is rich in support if you use it well. You will access ALEKS through the ALEKS website. I have provided instructions below.

Access ALEKS through the ALEKS website

Go to www.ALEKS.com and sign in or create a new user account. If you use the ALEKS website to enter ALEKS then you need the course code and you can use the free two-week access code to get started.

ALEKS Class Code: 4TFF6-6UEMA

Free two-week access code: 44051-E25F4-70C9F-9F8D6

eBook: Through the ALEKS site you will have access to the eBook for our course. The eBook contains videos, written sections, and examples. If you really want a paper copy, you can order a paper version of the etext through ALEKS, but really if you have ANY college algebra book then you can study topics from that book, so there is no need to buy this exact paper book. Your paid ALEKS 360 access code gives you access to the adaptive learning software and the ebook when you need explanations.

Written Work:

There will be a few written assignments, most likely once a week. These will be turned in through Moodle so they can be graded. You will either scan and upload your written work as a pdf or you will take a photo of your work and upload the photo. There may be a quiz in Moodle or in ALEKS during the week as well. These tasks will always be listed in Moodle on Monday of each week. Check Moodle early so you can plan your week. Late written work is not accepted.

Homework and ALEKS: There are 208 topics in ALEKS to master in this class. You may find that you already have some topics mastered when you get into our ALEKS course. Each week there are topics assigned and the weekly deadlines are always Sunday at midnight. New topics will be added each Monday. In Moodle you will find written assignments and a guide for the week but you should be getting into ALEKS each day to work on topics. This is your main homework. If you master all the topics for a particular week then you will be able to work ahead or you can go back and master topics you may not have learned from a previous week. This ALEKS program is adaptive and customizes to each student so you each will have a unique experience. If you have weekend plans that do not include homework then it is up to you to complete the ALEKS

topics before the weekend. You have the freedom to decide when during the week to complete the assigned topics. However if you wait until Sunday to start learning the weekly topics you will very likely run out of time. The best plan is to work hard early in the week so you have time to get help and then finish up any last topics on Friday.

You must be prepared to spend at least 10-15 hours per week on this class, many of those hours working in ALEKS. **The first week you must take the initial knowledge check by midnight on Tuesday, January 7 or you will be dropped from the class. As soon as you finish the Initial Knowledge Check you should start learning topics for the Week 1 ALEKS homework, which is due on Sunday nights by midnight.**

Missing ALEKS Deadlines: If you do not complete your ALEKS topics by the due date then you will lose points no matter why you missed the deadline. There are ten weekly deadlines that you will see in your ALEKS gradebook. No deadlines will be extended for ALEKS topics. Your goal is to always finish all the topics for a week, however, if you still have a few left then you just will move on to the next week's topics each Monday. ALEKS will present you with missed topics if they are critical to the week's work but we always need you working in the current topics first. In any week where you learn all of the topics, ALEKS will then open up all weeks and you can go learn topics you missed from previous weeks.

Midterm Exams Proctored at LBCC: There are two midterm exams. You will take each exam in a proctored setting. If you are taking exams at LBCC then you will print a test ticket from Moodle and go to one of the testing centers. If you are not taking tests at LBCC then you must find another community college or library where exams are proctored. There is likely a fee for this service and any fees are your responsibility. It takes time to arrange for proctoring so you need to email me during the first week of class to let me know if you will be finding a proctor. **Exams must be taken by the deadline. At most one midterm exam can be taken after the deadline and will earn at most 80%.**

Midterm Exam Review Objectives in ALEKS: Prior to each midterm exam you will see an Exam Review Topics objective open up in ALEKS. These are not new topics. These topics are the ones you should have already learned and the ones the test will concentrate on. They open up all together in one objective so you can focus on what you do not already know or review any topic conveniently in one location in ALEKS.

Final Exam: Your final exam is cumulative and will be taken during finals week. The final exam must also be proctored just like the midterm exams. After week 10 you will see a Final Exam Review Topics objective open up in ALEKS. This contains all the topics that will be stressed on the final exam. These are topics you should have already learned in previous weeks. If you learned them all then you will have nothing new to complete but all the topics will be in that objective and available for review.

Help:

- Ask questions by sending your instructor email.
- Join a Zoom meeting or email and request a meeting with your instructor.
- Make an appointment to work with a FREE tutor in the Learning Center.
- Talk with a math instructional assistant in the Learning Center.

Cheating:

If you cheat on an exam, you will receive a zero grade on the exam, and I will file an incident report with the Dean of Students. A second episode of cheating will guarantee an F grade for the course and more severe disciplinary action from the school. Copying project work from another student is cheating also. In those cases, you will earn no credit for the assignment or project and I will file an incident report. If you are having so many problems that you feel the only way out is to cheat, then you need to come talk with me. I am here to help you succeed. There are ways to work things out for students who are willing to try.

Anyone With Special Needs or Circumstances? Students who have issues I should be aware of, have emergency medical information that I should know about, need special arrangements in the event of evacuation, or have documented disabilities who may need accommodations, should talk with me as early as possible, no later than the first week of the term. If additional assistance is required the student should contact the Center for Accessibility Resources in RCH 105 or call [541-917-4789](tel:541-917-4789).

LBCC Comprehensive Statement of Nondiscrimination

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, gender, gender identity, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. For further information see Board Policy P1015 in our [Board Policies and Administrative Rules](#). Title II, IX, & Section 504: Scott Rolen, CC-108, [541-917-4425](tel:541-917-4425); Lynne Cox, T-107B, [541-917-4806](tel:541-917-4806), LBCC, Albany, Oregon. To report: linnbenton-advocate.symplicity.com/public-report.

Weeks	Schedule and Exam Dates
Week 1 Jan 6 - Jan 12	Sections 2.3 and 2.4 Functions, Lines and Recall Building Line Equations, Average Rates of Change, Intercepts, Interpretations The ALEKS Initial Knowledge check must be finished by Tuesday, January 7 by midnight or you will be dropped from the class.
Week 2 Jan 13 - Jan 19	Sections 1.6, 1.7 and 2.5 Absolute Value Equations and Inequalities, Parallel and Perpendicular Line Equations, Lines of Best Fit
Week 3 Jan 20 - Jan 26	Sections 2.6, 2.7 and 2.8 Basic Power and Root Functions, Function Translations, Piecewise Functions, Even/Odd Functions, Determine Increasing, Decreasing and Constant Trends in Functions, Symmetry, Working With Functions and Composition
Week 4 Jan 27 - Feb 2	EXAM 1 Deadline is Thursday, January 30 Section 3.1 Quadratic Functions, Factoring Spot Check, Quadratic Models and Problem Solving, Extreme Values
Week 5 Feb 3 - Feb 9	Sections 3.2, 3.3 and 3.4 Polynomial Functions, End Behavior, Zeros Real and Complex, Polynomial Long Division, Synthetic Division, Build the Equation of a Polynomial Function
Week 6 Feb 10 - Feb 16	Section 1.1, 1.6, and 3.5 Rational Functions and Applications Involving Dist/Rate/Time and Work, Solving Rational Equations, Solve Formulas
Week 7 Feb 17 - Feb 23	EXAM 2 Deadline is Thursday, February 20 Section 4.1, 4.2 and 4.3 Inverse Functions, Graphing Inverse Functions, Building Inverse Functions. Exponential Functions, Logarithmic Functions, Compound Interest and Exponential Models
Week 8 Feb 24 - Mar 1	Sections 4.4, 4.5 and 4.6 Exponential and Logarithmic Equations, Solving Equations, Creating Exponential Models, Compound Interest
Week 9 Mar 2 - Mar 8	Sections 1.2 and 5.1 Solving Systems of Equations, Substitution Technique, Elimination Technique, Distance-Rate-Time Problems, Mixture Problems
Week 10 Mar 9 - Mar 15	Section 6.1 and Review for the Final Exam Solving systems of equations using Matrices and Gauss-Jordan Elimination
Finals Week Mar 16 - Mar 18	Final Exam deadline Wednesday, March 18. The ALEKS Whole Pie will lock at midnight on March 18.

