

MTH 95 Intermediate Algebra

Basic Course and Instructor Info:

Term: F 2019
Room: WOH-113
CRN: 20175
ALEX Class Code: 3GWYE-QET3H

Instructor: Mike Hruschka
Office: WOH-103
Office Hours: M W 11-12; T F 9-10
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Course Description:

Intermediate Algebra is a course that develops the concept of a function. It is designed for the student who has an algebraic foundation (Math 75). Topics include an investigation of different functions, their graphs, and properties. The functions included are linear, quadratic, polynomial, radical, and exponential. Problem solving, technology, and cooperative learning is emphasized throughout the course. During the term, students will learn to recognize and express mathematical ideas graphically, numerically, symbolically, and in writing. Application problems are realistic with some data to be collected, analyzed and discussed in a group setting with results submitted in written form. Credits 4 Prerequisite: MTH 75 or Placement into the course.

Student Learning Outcomes:

1. Interpret and analyze functions to find information such as domain, range, variable and function values by using a variety of tools that may include graphs, tables or given equations.
2. Model application problems using appropriate algebraic models, which may include linear, quadratic, and exponential.
3. Communicate mathematical concepts, processes and solutions.
4. Apply algebra skills to topics such as factoring polynomials, solving quadratic equations, and simplifying expressions.

Required Materials:

- Tablet or Laptop (available for purchase or rent in bookstore if you don't have one.)
Minimum [specifications for use with ALEKS software](https://www.aleks.com/support/system_requirements):
https://www.aleks.com/support/system_requirements
- ALEKS 360 access code for 11 weeks. (If a 52-week code was previously purchased, that may be continued.)
- Course Materials Packet

Recommended Materials:

- Non-graphing, scientific calculator for testing. Graphing Calculators are not allowed on tests.
- Three ring binder for your course packet, ALEKS notes and class notes.

Grading Policies:

Category	Percent of Grade	Grading Scale
ALEKS Weekly Objectives	20%	A: 90 -100%
ALEKS Topics/Pie Overall	5%	B: 80 – 89%
In-Class Work	25%	C: 70 - 79%
ALEKS Skills Test 1	5%	D: 60 - 69%
ALEKS Skills Test 2	15%	F: 0 - 59%
Midterm Exam	12%	
Final Exam	18%	

Students may view their grades on the ALEKS website.

A grade of Incomplete may be assigned at the discretion of the instructor under special circumstances. The student must have completed the majority of the course, been in regular attendance and passing the course prior to the “special circumstance”.

Tests:

- The **Midterm Exam** will be taken in our classroom and it has a time limit of one hour. The test must be taken on the scheduled day. If you miss this test you will get a score of zero. Testing at an alternate time will only be allowed for special prearranged circumstances. However, the midterm exam grade may be replaced by the final exam score, up to a maximum of 75%. The *tentative* midterm exam date is listed on the course calendar.
- **The date and time of the Comprehensive Final Exam will not change: 8-8:50 AM Wednesday, December 11, 2019.** It will be in this classroom. Students have 1 hour and 50 minutes to complete the exam.
- The **ALEKS Skills Tests** will be taken in the Testing Center in RCH-111. Once the instructor has signed your testing ticket, you will have a few days to go in and take the test on your own time. These tests are taken in ALEKS and they are not timed. Refer to the test ticket for further information. The instructor will sign the testing ticket when you are ready to test. There are no notes or graphing calculators allowed during any of the tests.

Homework:

ALEKS is an adaptive online homework website (www.aleks.com). You will need to purchase an access code in order to get logged in. Your skills work will be completed on this site. Each week’s skills, called “Objectives,” will be available for a given length of time and you must learn those skills and demonstrate mastery by the deadline date and time. Your score at the time of the deadline will be recorded as a homework grade for that week, and any un-mastered skills will then become prerequisite work for the next week. Students who finish their ALEKS work before the deadline can work on other topics in the course pie.

ALEKS Homework Guidelines:

You should keep a notebook of loose-leaf paper for your ALEKS homework. You are expected to work through each problem and then write up neat, readable solutions for your notebook. Include the original problem unless it is a lengthy word problem. This will give you a study reference before testing.

In-Class Work:

Students will be actively participating in learning activities and group work every class meeting. Generally these activities must be done in class and cannot be made up. These are the lessons for this course. The activities are designed to help students develop and understand the concepts behind the math skills and how to apply them to various situations. The experiences gained from working in the groups will be a major component in determining the student's success in this course. **Attendance is therefore required.** At the instructor's discretion, unfinished in-class work may be completed at home and turned in at the beginning of the next class period. At the end of the quarter your lowest in-class assignment score will be dropped.

Attendance Policy:

If you miss four hours of class (1/10 of the class) you will get a warning. If you miss eight hours of class (20% of the class) your final course grade will drop one letter grade.

Late Work:

See the individual grading categories for policies on late work.

Notes online

Class notes will be available on my [instructor website](http://cf.linnbenton.edu/mathsci/math/hruschm/web.cfm?pgID=10191) <http://cf.linnbenton.edu/mathsci/math/hruschm/web.cfm?pgID=10191> I will also use my website to post the syllabus and my schedule.

Help

If you have questions, PLEASE **come see me** and ask! I have scheduled office hours but you're welcome to come in at other times too, or come see me in the Learning Center. **Study groups** are encouraged! Many students find that working with classmates is the best way to learn and understand the material. Don't forget about the **e-book and videos** available on ALEKS.

Use the Learning Center /Math Café

The Learning Center, WH226, is an excellent place to study and to **get help with your homework.** (Please remember to log on and log off the computer with each visit to the Learning Center.) The other LBCC campuses have similar facilities with Math Help available. The Albany Campus has The Math Café in WH-227, which is connected to the Learning Center.

- There is free wireless available in the Math Café and Learning Center (with lots of places to plug in so your battery won't be depleted.)
- The relaxed atmosphere and table arrangement in the Math Café and Learning Center provide great locations for study groups to meet and work.
- Instructional assistants are available in the Learning Center and Math Café to answer your math, and study skills questions. The Math Café specializes in Math 50, 75, **95**, 98, 105, and 111, and it is the best place to get help with ALEKS.
- The Learning Center also offers 3 hours per week of free individual and small group **tutoring.**

Computers:

- Computer labs are open to students in the Library and in the Learning Center.
- Laptops are usually available for short-term check out from the Library.
- Laptops are also available for use in the Math Cafe.

Expectations:

- I expect that my students will be involved in class. This includes being present, asking questions and participating in discussions and group work. You should come to class prepared (this means you should bring your notebook, tablet/laptop, etc. in addition to having your work with you). Spend **at least 8 hours per week working on this class.**
- I expect you will be respectful of everyone in the class, in word as well as behavior. Along these lines, I ask that you turn off and/or put away your cell phone, mp3 player, laptop, etc. during class unless it is being used for an activity so as to avoid causing a distraction.

LBCC Email:

You are responsible for all communications sent via ALEKS and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email.

Academic Honesty:

I assume that you are ethical and honest. However, if there is an incident of academic dishonesty (cheating), you will receive a score of zero for that test/assignment and the incident will be reported to the college administration for possible further disciplinary action. If there is a second offense, you will receive a grade of F for the course and the incident will be reported to the college administration with a recommendation for disciplinary action.

Special Circumstances:

Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the [CFAR Website](#) for steps on how to apply for services or call 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; Lynne Cox, T-107B, 541-917-4806, LBCC, Albany, Oregon. To report: linnbenton-advocate.symplicity.com/public_report

The instructor reserves the right to make changes to the syllabus/calendar at any time.

Tentative Schedule:

Week 1		Ebook Sections: 7.3, 16.1 and 16.2
30-Sep to 6-Oct	MON	Brief Introductions and Syllabus, ALEKS IKC (Begin in class and finish at home.)
	TUE	Function Carnival (Desmos), Relation and Function Vocabulary (ALEKS) (Begin in class and finish at home.)
	WED	Function Representations
	FRI	Dimensional Analysis, ALEKS Dimensional Analysis Quiz (Begin in class and finish at home.)
		Drop classes for a full refund until Monday of week 2.
Week 2		Ebook Sections: 11.4, 11.5, 11.6, 16.2, 16.3, and 16.5
7-Oct to 13-Oct	MON	Linear Equation Quick Sort, Linear Equation Practice
	TUE	Linear Function Application Draining Liquid
	WED	Variation
	FRI	Variation, Growth Mindset (Desmos)
Week 3		Ebook Sections: 13.1, 13.2, 13.3, 13.6, 18.2
14-Oct to 20-Oct	MON	Properties of Exponents Matching
	TUE	Integer Exponent Practice
	WED	Rules of Rational Exponents ALEKS Skills Test 1 - Opens Wednesday
	FRI	Exponent Properties Study Guide, ALEKS Rational Exponent Quiz (Begin in class and finish at home.)
Week 4		Ebook Sections: 10.6, 18.1, 18.2, 18.3, 18.5
21-Oct to 27-Oct	MON	Solving an Equation for a Variable ALEKS Skills Test 1 - Closes Monday
	TUE	Rational Exponent Function Application
	WED	Simplifying Radicals
	FRI	Rational Function Application Tsunamis
Week 5		Ebook Sections: 13.5, 13.6, 16.2, 16.3, 18.1
28-Oct to 3-Nov	MON	Introduction to Graphing Root versus Linear Functions, Begin Radical Functions
	TUE	Finish Radical Functions, Desmos Radical Function Match-Up
	WED	Desmos Improving Memory Skills, Begin Introduction to Polynomials
	FRI	Finish Introduction to Polynomials

Week 6		Ebook Sections: 14.1, 14.2, 16.2
4-Nov to 10-Nov	MON	Classifying Polynomials Who Am I?, Midterm Review
	TUE	Midterm Exam Review
	WED	Midterm Exam In Class
	FRI	Factoring out a GCF and Factoring Basic Trinomials
Week 7		Ebook Sections:14.1, 14.3, 14.4, 14.5, 14.7
11-Nov to 17-Nov	MON	CAMPUS CLOSED Monday, November 11
	TUE	Factoring by Grouping and "ac" Method
	WED	Factoring Special Products, Choosing and Applying Factoring Methods
	FRI	Roots and Factors Solving Quadratic Equations
		Withdraw from classes online until Sunday of week 7.
Week 8		Ebook Sections: 14.8, 18.8, 19.1, 19.2
18-Nov to 24-Nov	MON	Real Versus Imaginary Numbers, Solving Quadratic Equations by the Square Root Method
	TUE	Solving Quadratic Equations by Completing the Square
	WED	Solving Quadratic Equations by Using the Quadratic Formula
	FRI	Solving Quadratic Equations by Graphing, Projectile Motion (Begin in class and finish at home.)
Week 9		Ebook Sections: 16.3, 19.4, 19.5, 20.2
25-Nov to 1-Dec	MON	Solving Quadratic Equations All Methods; Polygraph Parabolas OR Parabolas Who Am I?
	TUE	Exponential Functions Introductions ALEKS Skills Test 2 - Opens Tuesday
	WED	Exponential Functions Applications
	FRI	CAMPUS CLOSED FRIDAY, NOVEMBER 29
Week 10		Ebook Sections: 6.8, 11.6, 13.1, 20.2, 20.6
2-Dec to 8-Dec	MON	Patterns and Growth Practice, Exponential vs. Linear Change Discussion
	TUE	M&M Modeling OR Comparing Models with Regression ALEKS Skills Test 2 - Closes Tuesday
	WED	Desmos Modeling Domain and Range, Review for Final Exam
	FRI	Desmos Graphing Stories, Review for Final Exam
Finals Week		
11-Dec	WED	Final Exam 8-9:50 AM WOH-113