MTH 95 Intermediate Algebra

Basic Course and Instructor Info:

Term: Winter 2020
Instructor: Mike Hruschka
Times: MTWF 11 – 11:50 AM
Email: hruschm@linnbenton.edu
Zoom Room: https://linnbenton.zoom.us/j/93965723479
CRN: 20614
Office Hours: T 3-4, R 11-12
ALEX Class Code: CDVJY-6DPNG
Office Zoom Room: https://linnbenton.zoom.us/j/170639244

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, avoid Chromebooks. To check the minimum computer specifications to use ALEKS and the lockdown browser, go to the webpage at https://www.aleks.com/support/lockdown_system_requirements
- ALEKS 360 access code for 11 weeks. This should cost $60. You can order it from the bookstore or purchase through ALEKS once your account is created. (If a 52-week code was previously purchased, that may be continued.)
- Computer Webcam, Computer Microphone, Reliable Internet Access
- For proctored testing there will be a required free lockdown browser and video monitoring.
- Course Materials Packet purchased from the bookstore.

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.
- Quick access to your login information for ALEKS, your LBCC email account, and Single Sign On. Having this information at your fingertips (or memorized) will make this class (and many others at LBCC) run much more smoothly.

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 in the ALEKS gradebook.

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".

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.

Missing ALEKS Deadlines:
If you do not complete your ALEKS work 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. Deadlines are not generally 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 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 with the current topics first. In any week where you learn all of the topics, ALEKS will then suggest you work on previously missed topics or allow you to work ahead.

In-Class Work:
Students will be actively participating in learning activities and group work every class meeting. 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. **You need to buy the Math 95 Course Materials packet from the bookstore** so you can write up your answers carefully, showing your support work on the activity pages. 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.**
You will either scan and upload your written work to Moodle or you will take a photo of your work and upload the photo to Moodle. There are nice apps for your phone that create

PDF files easily with your phone. Keep in mind that Moodle will lock at 11:59pm on the deadline day and will not accept additional submissions. When you upload your work you must click on the SUBMIT button to finalize that your homework has been turned in through Moodle. At the end of the quarter your lowest in-class assignment score will be dropped.
Late work is not accepted in Moodle. However, each student may have TWO Written Assignment Late Passes that can be used ONLY on the written assignments collected from the Math 95 packet of activities. The late pass gives a 24 hour extension to get the written assignment done. Moodle will not accept it late so you will have to email the assignment to your instructor and be sure to tell your instructor you are using one of your two late passes.

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.

Tests:
All exams and skills tests will be taken from your own home and will be proctored using a lockdown browser and video camera monitoring. The lockdown browser is a one-time free download. There are no graphing calculators allowed during any of the tests. All exams have specific due dates, so it is important that you stay on schedule during the term.

- The **Midterm Exam** will be taken in ALEKS and it has a time limit of two hours.
- The **Comprehensive Final Exam** will be taken during finals week. Students have 3 hours to complete the exam. It will be taken in ALEKS.
- The two **ALEKS Skills Tests** will be taken in ALEKS. These tests are not timed.

Additional Resources:

eBook:
Through the ALEKS site you will have access to the eBook. It is highly recommended that you read the sections of the eBook as listed in the course schedule. The eBook also contains videos. If you really want a paper copy of the eBook, you can order a paper version of the text through ALEKS. A paper copy of the eBook is not required.

Class notes and videos
Class notes will be posted in Moodle. Blank notes will be posted before class, and completed notes will be posted after class. Class Zoom sessions will be recorded, posted in Kaltura, and linked in Moodle. To view the videos you will usually have to log in using Single Sign On (your x-number and password).

Your instructor
If you have questions, PLEASE ask! Usually this works best in Zoom, but I also respond quickly to emails. I am also available in class, outside my office hours by request, and in the Learning Center.

Learning Center:

- The Math Help Desk is open for Zoom drop-in help M-F 9-6, Sa 11-4, and Su 11-3. This is a place to ask a question or 2, think about things for a while, and come back.
- If you want to sit down with a tutor for an hour (again over Zoom) go to the tutoring webpage to schedule an appointment. Students can get up to 3 hours per week of tutoring help at the tutoring center.

ALEKS support:
ALEKS is very good about providing support in real time.

First Resort:
LBCC has an enormous amount of support available for students; much more than I can list here. If you need something, ask at the First Resort and they can direct you to someone who can help you. They are available via Zoom, and by email at firstresort@linnbenton.edu.

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. **Spend at least 8 hours per week working on this class outside of class time.**
- I expect you will be respectful of everyone in the class, in word as well as behavior.

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	Day	Events
Week 1		Ebook Sections: 7.3, 16.1 and 16.2
28-Sep	M	Brief Introductions and Syllabus, ALEKS Initial Knowledge Check
to	T	Function Carnival Desmos, Functions Representations
4-Oct	W	Relation and Function Vocabulary USES EBOOK
	F	Dimensional Analysis, ALEKS Dimensional Analysis Quiz
		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
5-Oct	M	Linear Equation Quick Sort, Linear Equations and Linear Functions
to	T	Linear Function Application: Draining Liquid
11-Oct	W	Variation
	F	Variation, Desmos Growth Mindset
Week 3		Ebook Sections: 13.1, 13.2, 13.3, 13.6, 18.2
12-Oct	M	Discovering Properties of Integer Exponents
to	T	Properties of Exponents Matching, Integer Exponent Practice
18-Oct	W	Integer Exponent Critical Thinking, Exponent Properties Study Guide, **ALEKS Skills Test 1 - Opens Wednesday, October 14, Closes Thursday, October 15**
	F	ALEKS Rational Exponent Quiz and Follow-Up
Week 4		Ebook Sections: 10.6,18.1, 18.2, 18.3, 18.5
19-Oct	M	Rational Exponent Application: Birds
to	T	Solving Equations for a Variable
25-Oct	W	Simplifying Radicals, ALEKS Simplifying Radical Expressions Quiz
	F	Radical Function Application: Tsunamis
Week 5		Ebook Sections: 13.5, 13.6, 16.2, 16.3, 18.1
26-Oct	M	Introduction to Graphing Radical versus Linear Functions
to	T	Radical Functions Exploration, Desmos Radical Function Match-Up
1-Nov	W	Begin Introduction to Polynomials, Growth Mindset 2
	F	Finish Introduction to Polynomials
Week 6		Ebook Sections: 14.1, 14.2
2-Nov	M	Classifying Polynomials-Who Am I?
to	T	Midterm Exam Review
8-Nov	W	**Midterm Exam November 4 or November 5**
	F	Factoring Out a GCF and Factoring Basic Trinomials
Week 7		Ebook Sections:14.1, 14.3, 14.4, 14.5, 14.7
9-Nov	M	MEMORIAL DAY
to	T	Factoring by Grouping and "ac" Method
15-Nov	W	Factoring Special Products, Choosing and Applying Factoring Methods
	F	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, 19.4
16-Nov	M	Real Versus Imaginary Numbers, Solving Quadratic Equations: Square Root Method
to	T	Solving Quadratic Equations: Completing the Square
22-Nov	W	Solving Quadratic Equations: The Quadratic Formula
	F	Graphing Quadratic Functions and Solving by Graphing, Assign Quadratic Function Application: Projectile Motion
Week 9		Ebook Sections: 19.4, 19.5, 20.2
23-Nov	M	Solving Quadratic Equations All Methods or Parabolas Match-Up
to	T	Exponential Function Introduction **ALEKS Skills Test 2 November 24 or 25**
29-Nov	W	Exponential Functions Applications
	F	THANKSGIVING
Week 10		Ebook Sections: 6.8, 20.2
30-Nov	M	Patterns, Growth, and Models, Exponential Versus Linear Change
to	T	Exponential Function Application: M&M Modeling or Comparing Models with Regression
6-Dec	W	Desmos Modeling Domain and Range, Desmos Graphing Stories, Review for Final Exam
	F	Review for Final Exam
Finals Week		
7-Dec		**FINAL EXAM in ALEKS December 7 through December 9**
to		
9-Dec		