

MTH 95 Intermediate Algebra Internet

Term: Summer 2020

CRN: 12988

Class Code: TLCVT-HHKCR

Instructor: Nicole Francis Email: <u>francin@linnbenton.edu</u> Zoom Office: <u>Click to Zoom with Nicole</u> Office Hours: by appointment

MTH 95 Intermediate Algebra 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.

What will you learn in this class?

- 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.

What materials do you need for this class?

- 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
- ALEKS access code for 11 weeks. (If a 52-week code was previously purchased, that may be continued.)
- Internet 95 Course Materials Packet
- Non-graphing, scientific calculator for testing (recommended but optional).
- Three ring binder for your course packet and ALEKS notes (recommended but optional).
- Webcam and microphone will be needed for remotely proctored test and class meetings as well as reliable internet access.

How Will your Grade be Calculated?

Your grade will be calculated using a weighted average based on the percentages below for each category. You can find detailed information about the categories on the next page.

| Category | Percent of Grade |
|--------------------------|------------------|
| ALEKS Weekly Objectives | 20% |
| ALEKS Topics/Pie Overall | 5% |
| Activities and Quizzes | 25% |
| ALEKS Skills Test 1 | 5% |
| ALEKS Skills Test 2 | 15% |
| Midterm Exam | 12% |
| Final Exam | 18% |

Your letter grade for the course will be assigned based on the grading scale:

- A: 90 -100%
- B: 80 89%
- C: 70 79%
- D: 60 69%
- F: 0 59%

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

All tests will be taken using in ALEKS using a lockdown browser and video monitoring.

| Tests | Deadlines |
|--------------------------------------|---|
| Aleks Initial Knowledge Check | Tuesday June 30 (If you miss the deadline for the initial knowledge check you will be dropped from the class.) |
| Aleks Skills Test 1 - unlimited time | Thursday - Saturday of Week 3 (July 16-18) |
| Midterm Exam - 2 hour time limit | Thursday - Saturday of Week 6 (Aug 6-8) |
| Aleks Skills Test 2 - unlimited time | Thursday - Saturday of Week 9 (Aug 27-29) |
| Final Exam - 3 hour time limit | Tuesday - Thursday of Week 10 (Sept 1-3) |

Activities and Discussions

We will be using Moodle for this course. Each week you will have several assignments in Moodle to complete in addition to your ALEKS homework. You will be actively participating in learning activities and group discussion each week. Generally, these activities must be done by the due date and cannot be accepted late, but you can always work ahead to accommodate your schedule. The activities and discussions are designed to help you develop and understand the concepts behind the math skills, and how to apply them to various situations. The experiences gained from working on activities and class discussions will be a major component in determining your success in this course. Participation is therefore required. You will need to <u>log into Moodle several times each week</u> to participate in the course activities and discussions.

Activities

Each week you will have course activities to complete. Most can be found in your Internet 95 course packet, and a few will be given via a link or video in Moodle. Following an activity you will either complete a quiz on that activity, engage in a concept chat around the activity, or upload your completed activity followed by a deeper discussion at the end of the week. Detailed instructions for each activity will be provided.

Some activities are designated a "concept chat". To receive full credit for the concept chat discussion you must post a response AND respond to at least one other person's post. My hope is that the discussion will be engaging and help you think about the week's math topics from a different perspective.

Each week you will upload at least one completed activity and look back on your work to learn from any mistakes. These reflections are an opportunity to understand why you struggled with a problem, why the solution makes sense, and ask questions. In addition to describing your own deeper understanding, you will respond to your classmates so everyone can better understand the mathematics involved.

Activities and discussions are designed to help you gain a conceptual understanding of the material you are learning. You can read more about the philosophy the LBCC math department has adopted for their courses in Moodle.

Homework

ALEKS is an adaptive online homework system that you will be accessing through Moodle. You will need to purchase an access code to access the homework. Your skills work will be completed using ALEKS. Each week, you will have specific topics you must learn followed by a "knowledge check" (think of this as a weekly quiz) to see which of those topics you have mastered and retained. You should learn all of the weekly topics, complete the weekly knowledge check, and go back to work on any topics from the week that you need to revisit before the homework deadline. Your score at the time of the deadline will be recorded as a homework grade for that week. Students who finish their ALEKS work before the deadline can also work on other topics in the course pie.

ALEKS Homework Guidelines

You should keep a notebook 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.

Help

If you have questions, PLEASE ask! I am available by email or zoom online meeting, or in person. **<u>Study groups</u>** are encouraged! Many students find that working with classmates is the best way to learn and understand the material.

<u>Use the Learning Center</u> /<u>The Math Cafe</u> (Click the links for hours and locations)

The Learning Center has a <u>Zoom Online Help Room</u> available. Instructional assistants are available to answer your math, ALEKS and study skills questions.

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.

Expectations:

- I expect that my students will be involved in and working on this class several times a week. This includes asking questions and participating in group discussions, watching videos, etc.
- Spend at least 12 hours per week working on this class.
- You should log into Zoom meetings prepared (this means you should have your notebook, table/laptop, work, etc. ready).
- I expect you will be respectful of everyone in the class, in word as well as behavior. Discussion board posts should be respectful and supportive of the success of everyone in the class. We will all need extra patience and kindness this term.

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. During proctored exams you must not access outside notes, help from others, a graphing calculator, or your cell phone. 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 for disciplinary action.

Special Circumstances:

Students who have any emergency medical information the instructor should know of, who need special arrangements in the event of evacuation, or students with documented disabilities who may need accommodations, should **make an appointment with the instructor as early as possible, no later than the first week of the term.**

Request for Special Needs or Accommodations

Direct questions about or requests for special needs or accommodations to the LBCC Disability Coordinator, RCH-105, 6500 Pacific Blvd. SW, Albany, Oregon 97321, Phone 541-917-4789 or via Oregon Telecommunications Relay TTD at 1-800-735-2900 or 1-800-735-1232. Make sign language interpreting or real-time transcribing requests 2-4 weeks in advance. Make all other requests at least 72 hours prior to the event. LBCC will make every effort to honor requests. LBCC is an equal opportunity educator and employer.

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 <u>Board Policies and Administrative Rules</u>. Title II, IX, & Section 504: Scott Rolen, CC-108, 541-917-4425; Lynne Cox, T-107B, 541-917-4806, LBCC, Albany, Oregon. To report: <u>linnbenton-advocate.symplicity.com/public_report</u>

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

Week Topics 1 Course Introduction, Making Group Work Effective, Functions, **Dimensional Analysis** 2 Linear Functions, Variation, Growth Mindset 3 Rules of Integer and Rational Exponents ALEKS Skills Test 1 4 Solving Equations for Variables, Simplifying Radicals, Radical Application 5 Radical Functions, Rational Exponent Functions, Introduction to Polynomials Polynomials, Midterm Exam, Factoring 6 7 More Factoring Methods, Solving Quadratic Equations 8 More Methods for Solving Quadratic Equations 9 Quadratic Functions, Exponential Functions ALEKS Skills Test 2 10 Modeling, Review for Final Exam, Final Exam

Tentative Course Calendar: