



MTH 75 Variables and Linear Equation - Fall 2020

Instructor: Phillip Jones

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MTH 075 Variables and Linear Equations Course Description

An introductory algebra course covering variables, writing and solving linear equations, graphing linear equations, and applications of linear models including proportions and systems of equations. Group work, problem-solving, and communication are emphasized in this course. Students will develop skills in conversion of measurement units and scientific notation. Credits: 4 Prerequisite: MTH 050 or Placement into the course.

By the end of Math 75 you will be able to:

- 1. Solve linear equations
- 2. Graph linear equations
- 3. Model real world applications with linear equations
- 4. Communicate the meaning of a linear equation
- 5. Solve systems of equations

Required Materials:

- Tablet or Laptop (available for purchase or rent in bookstore if you don't have one.) Minimum <u>specifications for ALEKS software</u>: https://www.aleks.com/support/system_requirements
- ALEKS access code for 11 weeks or for 52 weeks if moving on to MTH 95. (If a 52-week code was previously purchased, that may be continued.)
- Scientific Calculator (optional)

Grading Policy

Your grades will be based on the following categories.

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. Students 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. The activities and discussions 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 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 at least one course activity to complete. You will either upload your completed activity to receive feedback from your instructor or you will complete a Concept Check (Quiz) for that activity. Detailed instructions for each activity will be provided.

Concept Chats

Each there will be a concept chat with a new topic. To receive full credit for the week's discussion post 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.

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 <u>Why are there activities in Math 75?</u>.

Homework

ALEKS is an adaptive online homework system. ALEKS will be accessed through Moodle. You will need to purchase an access code to access the ALEKS part of the course. Your skills work will be completed using ALEKS. Each week, you will have specific topics you must learn the 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. 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.

Tests

There will be 4 ALEKS skills tests. The tests will require the use of the lockdown browser in ALEKS. These tests are not timed, but will need to be completed by the due date. There are no retests allowed for this course. There is not a final exam for this course.

Grades will be calculated using a weighted average based on the percentages:

20% ALEKS Weekly Homework 5% ALEKS Topics Completion ("whole pie") 40% ALEKS Skills Tests (Test 1- 5%, Test 2- 10%, Test 3-10%, Test 4- 15%) 25% Moodle Activities and Concept Chats 10% Final Project

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

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

Students may view their grades on Moodle.

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.

Attendance Policy

Your regular attendance and thoughtful participation in class are essential for your success in learning math. Your <u>regular</u> online attendance is mandatory. If there is a week you will be unable to log in and participate in the class, please let your instructor know ahead of time by email. Students are responsible for any material, updates, or other information available in Moodle.

Late Work

If you are going to miss class for any reason let me know ahead of time. It's to your benefit if I know right away, so that I can help you if I can.

Help

If you have questions, PLEASE ask! You are welcome to email anytime or schedule a time to visit my office or have an online video chat. **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 (Click the link for hours and locations)

The Math Desk will be operating this term to support students working remotely via Zoom. You can access the Math Help Desk and Math Cafe using the link on the class moodle page or the Learning Center website.

Computers

You will also need a computer/tablet/device with internet access. If you do not have access to a computer with internet, LBCC has posted lots of information and resources here: <u>COVID 19 frequently asked questions and resources</u>

Expectations

- I expect that my students will be involved in the class. This includes logging in regularly, asking questions, along with participating in concept chats and group activities.
- I expect you will be respectful of everyone in the class. Discussion board posts should be respectful and supportive of the success of everyone in the class.

LBCC Email:

You are responsible for all communications sent via Moodle 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 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>

Fall 2020 Math 75 Online Calendar

Week 1

Introduction to the course Syllabus Quiz ALEKS Initial Knowledge Check Concept Chat 1 Activity 1 Central Park ALEKS Week 1 Pie

Week 2

Activity 2 Properties of Real Numbers Concept Chat 2 Activity 4 Introduction to Equations and Quiz ALEKS Week 2 Pie

Week 3 – Test 1 Due Friday

Test 1 Concept Chat 3 Activity 6 Working with Formulas Activity 6 Quiz: Formulas ALEKS Week 3 Pie

Week 4

Concept Chat 4 Activity 7 Planning a Spaghetti Party Activity 8 Applications with Equations ALEKS Week 4 Pie

Week 5 - Test 2 Due Friday

Test 2 Concept Chat 5 Activity 10 The Story of a Graph ALEKS Week 5 Homework

Week 6

Concept Chat 6 Activity 11 Put a Point on the Line Activity 12 Investigating Rates of Change Activity 13 Match my Line ALEKS Week 6 Pie

Week 7

Test 3 Activity 14 Land the Plane Activity 15 Applications of Equations of Lines Activity 16 Linear Regression Concept Chat 7 ALEKS Week 7 Pie

Week 8 – Test 3 Due Friday

Activity 18 Intro to Systems of Equations Concept Chat 8 Activity 19 Solving Systems by Graphing ALEKS Week 8 Pie

Week 9

Video: Introduction to Systems of Equations Activity 20 Racing Cars Activity 21 Concept Chat

Week 10 – Project Due, Test 4 Due Friday