

## MTH 75 Variables and Linear Equations

Term: Fall 2019 CRN: 26393 Class Code: 70

**Instructor: Esther Chapman** 

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Office Hours: By appointment

## 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</u> into Moodle several times each week 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.

#### **Discussion Board**

Each week, there will be a discussion board 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 persons 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 Why are there activities in Math 75?.

#### 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 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**

The ALEKS Skills Tests and Concept Exams must be proctored at an LBCC campus. 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 not timed. Refer to the test ticket for further information. 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 Homework

5% ALEKS Topics Completion ("whole pie")

20% ALEKS Skills Tests (Test 1: 5%, Test 4: 15%)

20% Moodle Activities and Discussion Posts

30% Two Written Concept Exams (15% each)

5% 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. You <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 in available in Moodle.

#### **Late Work**

Late work will generally not be accepted. Activities cannot be made up. Discussion posts cannot be made up. In the case of extreme circumstances beyond the student's control, alternate arrangements may be made and will be at the discretion of the instructor. You may also be required to present written proof of your circumstances. If you miss an exam you will receive a zero for that exam. You may take up to one exam late for up to a maximum score of 80%.

#### 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 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.

- There is free wireless available in the Learning Center (and lots of places to plug in so your battery won't be depleted.)
- The relaxed atmosphere and table arrangement in the Learning Center provide a great location for study groups to meet and work.
- Instructional assistants are available at the help desk and the Math Angle to answer your math and ALEKS questions
- The Learning Center offers some free individual and small group tutoring in addition to the help desk.

### 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 the class. This includes logging in regularly, asking questions, along with participating in discussion boards 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, to your LBCC email account, and in ALEKS. 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, but 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 2019 Math 75 Online Calendar

#### Week 1

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

#### Week 2

Activity 2 Properties of Real Numbers Activity 3 Like Terms Concept Chat Activity 4 Introduction to Equations Activity 4 Quiz: Equations ALEKS Week 2 Homework

## Week 3 – Test 1 Due Friday

ALEKS Test 1 (must be proctored) Activity 5 More Solving Equations Concept Chat Activity 6 Working with Formulas Activity 6 Quiz: Formulas ALEKS Week 3 Homework

#### Week 4

Activity 7 Planning a Spaghetti Party **Concept Chat** Activity 8 Applications with Equations Activity 9 Inequalities on the Number Line ALEKS Week 4 Homework

## Week 5 - Test 2 Due Friday

Test 2 Written Test (must be proctored) Activity 10 The Story of a Graph Concept Chat Activity 11 Put a Point on the Line Activity 12 Investigating Rates of Change Discussion: Slope ALEKS Week 5 Homework

#### Week 6

Activity 13 Match my Line Concept Chat Activity 14 Land the Plane Quiz: Equations of Lines ALEKS Week 6 Homework

#### Week 7

Activity 15 Applications of Equations of Lines Activity 16 Linear Regression Concept Chat ALEKS Week 7 Homework

## Week 8 – Test 3 Due Friday

Test 3 Written Test (must be proctored) Activity 17 Intro to Systems of Equations **Concept Chat** Activity 18 Solving Systems by Graphing Quiz

#### Week 9

Activity 19 Racing Dots Quiz Activity 20 Wafers and Crème Concept Chat

# Week 10 - Project Due

**Project** 

## Finals Week – Test 4 Due by Monday