



College Algebra

MASC 115

Southwestern College Professional Studies

COURSE SYLLABUS

I. Course Catalog Description

This course provides learners with the algebra, reasoning, and problem-solving skills needed for everyday life. The course focuses on simplifying expressions and solving equations in real-world situations using variables for unknowns. Learners will solve problems using algebraic principles and tools and then incorporate these mathematical concepts into realistic business, consumer, science, and statistical contexts.

II. Required and Supplementary Instructional Materials

All required and supplementary materials are included in the Blackboard course and McGraw-Hill ALEKS. However, you must purchase an ALEKS 360 access code.

III. Learning Outcomes

Learning outcomes describe the knowledge, skills, values, and attitudes that learners gain as the result of a particular learning experience. Southwestern College Professional Studies has learning outcomes specific to each program of study that are in line with the institutional outcomes of critical thinking, ethical reasoning, leadership, communication, and career preparation. Course outcomes support program outcomes and are listed below.

Upon successfully completing this course, the learner will be able to:

1. Add, subtract, multiply, and divide different forms of integers, rational numbers, and real numbers (including fractions, decimals, and percents); emphasis is placed on solving related real-world problems.
2. Simplify and solve variable expressions, equations, and inequalities and related real-world problems.
3. Graph and solve linear equations and inequalities and related real-world problems.
4. Add, subtract, multiply, divide, and factor polynomials and solve related real-world problems.
5. Add, subtract, multiply, divide, and simplify rational and radical expressions and solve related real-world problems.
6. Graph and solve quadratic, exponential, and logarithmic functions and related real-world problems.
7. Solve systems of linear equations and inequalities and related real-world problems.

At the end of the course, learners may vary in their ability to achieve these outcomes. You are more likely to achieve these outcomes only if you attend class and/or online activities as required by the syllabus, complete the requirements for all assignments to the best of your ability, participate actively in class activities and group work as directed, and study diligently for exams.

IV. Course Policies

Students are expected to read and abide by the course policies located in the instructor-specific syllabus in the blackboard course.

V. Course Requirements:

Requirements	Number of Assignments	Points Possible	Percent of Grade
Introductions	1	10	1%

Requirements	Number of Assignments	Points Possible	Percent of Grade
Discussion Assignments	4	240	24%
ALEKS Pie Interactive Homework Assignments	6	510	51%
ALEKS Unit Tests	6	240	24%
Total Points		1000	100%

VI. Course at a Glance:

Unit	Reading & Preparation Activities	Graded Work Due
Unit 1: Review of Prerequisites	<ul style="list-style-type: none"> College Algebra: Chapter R Chapter R Lessons 	In ALEKS: <ul style="list-style-type: none"> Pie Topics for Chapter R Unit Test for Chapter R In Blackboard: <ul style="list-style-type: none"> Introductions forum
Unit 2: Equations and Inequalities	<ul style="list-style-type: none"> College Algebra: Chapter 1 Chapter 1 Lessons 	In ALEKS: <ul style="list-style-type: none"> Pie: Chapter 3 Topics Chapter 3 Unit Test: In Blackboard: <ul style="list-style-type: none"> Chapters R & 1 Discussion
Unit 3: Functions And Graphs	<ul style="list-style-type: none"> College Algebra: Chapter 2 Chapter 2 Lessons 	In ALEKS: <ul style="list-style-type: none"> Pie: Chapter 2 Topics Chapter 2 Unit Test In Blackboard: <ul style="list-style-type: none"> Chapter 2 Discussion
Unit 4: Polynomial and Rational Functions	<ul style="list-style-type: none"> College Algebra: Chapter 3 Chapter 3 Lessons 	In ALEKS: <ul style="list-style-type: none"> Pie: Chapter 3 Topics Chapter 3 Unit Test In Blackboard: <ul style="list-style-type: none"> Chapter 3 Discussion
Unit 5: Exponential and Logarithmic Functions	<ul style="list-style-type: none"> College Algebra: Chapter 4 Chapter 4 Lessons 	In ALEKS: <ul style="list-style-type: none"> Pie: Chapter 4 Topics Chapter 4 Unit Test
Unit 6: Systems of Equations and Inequalities	<ul style="list-style-type: none"> College Algebra: Chapter 5 Chapter 5 Lessons 	In ALEKS: <ul style="list-style-type: none"> Pie: Chapter 5 Topics Chapter 5 Unit Test In Blackboard: <ul style="list-style-type: none"> Chapter 5 Discussion

VII. Other Policies and Requirements

Follow this link to the Southwestern College Professional Studies [Standard Syllabus](#) in Blackboard. You may be required to log in.