

**COURSE NAME and ID Number**

Intermediate Algebra, ID# 429

**DOMAIN**

SOEE

**COURSE STATEMENT**

This course focuses on simplifying expressions, solving equations and graphing functions for linear, quadratic, rational, radical, exponential and logarithmic relationships.

**COURSE DESCRIPTION**

This course focuses on simplifying expressions, solving equations and graphing functions for linear, quadratic, rational, radical, exponential and logarithmic relationships. Additionally, systems of equations in two or three variables, and systems of inequalities in two variables are reviewed.

**COURSE OBJECTIVES**

Upon successful mastery of this competency, you will be able to:

- Demonstrate the necessary background proficiency in algebra foundations for successfully completing the course.
- Simplify and solve equations and inequalities and standard applications involving linear functions, and identify their graphs from salient features.
- Simplify and solve systems of linear equations (both  $2 \times 2$  and  $3 \times 3$ ) and inequalities ( $2 \times 2$  only).
- Simplify and solve equations and standard applications involving polynomial and rational functions, and identify their graphs from salient features.
- Simplify and solve equations and standard applications involving quadratic and radical functions, and identify their graphs from salient features.
- Simplify and solve equations and standard applications involving exponential and logarithmic functions, and identify their graphs from salient features

**DEMONSTRATING MASTERY: A TWO-STEP PROCESS****Step One: Learning and Understanding**

This course is broken down into **Learning Objectives** and related **Topics**. For each objective, you will participate in a Learning Activity. This Learning Activity will direct you to content specially designed to enhance and reinforce understanding. While in the content you will have access to a variety of activities (e.g., quizzes, exercises, labs, and flashcards.)

**Course Structure**

The table below details the Learning Objectives along with their corresponding resources and Milestone Activities.

Objectives	Topics
Demonstrate the necessary background proficiency in algebra foundations for successfully completing the course.	<ul style="list-style-type: none"> <li>● Language of Algebra</li> <li>● Integers</li> <li>● Fractions</li> <li>● Decimals</li> <li>● Properties of Real Numbers</li> </ul>
Simplify and solve equations and inequalities and standard applications involving linear functions, and identify their graphs from salient features.	<ul style="list-style-type: none"> <li>● Linear Equations in One Variable</li> <li>● Applications of Linear Equations in One Variable</li> <li>● Linear Inequalities in One Variable</li> <li>● Linear Equations and Inequalities in Two Variables</li> <li>● Functions</li> </ul>
Simplify and solve systems of linear equations (both 2x2 and 3x3) and inequalities (2x2 only).	<ul style="list-style-type: none"> <li>● Solving a 2x2 Linear System of Equations</li> <li>● Solving 3x3 Linear System of Equations</li> <li>● Solving 2x2 Linear Systems of Inequalities</li> </ul>
Simplify and solve equations and standard applications involving polynomial and rational functions, and identify their graphs from salient features.	<ul style="list-style-type: none"> <li>● Polynomials</li> <li>● Factoring</li> <li>● Rational Functions</li> </ul>
Simplify and solve equations and standard applications involving quadratic and radical functions, and identify their graphs from salient features.	<ul style="list-style-type: none"> <li>● Radical Functions</li> <li>● Solving Quadratic Equations</li> <li>● Quadratic Functions</li> </ul>
Simplify and solve equations and standard applications involving exponential and logarithmic functions, and identify their graphs from salient features.	<ul style="list-style-type: none"> <li>● Compositions and Inverses</li> <li>● Exponential Functions</li> <li>● Logarithmic Functions</li> <li>● Solve Exponential and Logarithmic Equations</li> </ul>

### Step Two: Final Assessment

Once you have successfully progressed through each Objective and Milestone Activity, you are ready to demonstrate that you have mastered the course. For a Level 1 Course, your Final Assessment is an objective exam (multiple-choice). This exam is proctored

using a remote-proctoring system. You are allowed a maximum of three Final Assessment attempts to demonstrate mastery for each course.

## **STUDENT RESOURCES**

### **Brandman Online Library Resources**

Brandman University provides comprehensive online library services including access to books, journals, databases, and other resources. Librarians are available via email and phone to provide support. Students can access the library directly when logged into their courses.

### **Writing and Math Help**

Brandman's Online Writing and Math Community (OWMC) offers subject-specific tutoring services, live workshops, video tutorials, tutorial office hours, and links to top academic sites in order to ensure student success. Students can access the OWMC directly when logged into their courses.

### **Netiquette**

Communicating in an efficient and respectful manner is critical to the learning process. Please view the following clip which provides netiquette guidelines:

[http://www.youtube.com/watch?feature=player\\_embedded&v=6dRocIqDJh0](http://www.youtube.com/watch?feature=player_embedded&v=6dRocIqDJh0)

### **Standards of Academic Integrity**

Academic integrity is a core Brandman University value which insures respect for the academic reputation of the University, its students, faculty and staff, and the degrees it confers. Students are required to read, understand, and apply the standards set forth concerning academic integrity found in the policy link below.

<http://www.brandman.edu/current-students/resources/catalogs>

### **Americans with Disabilities Act Statement**

Brandman University is committed to ensuring equal educational access and opportunity for all members of our academic community. Students will be provided timely,

efficient, and equitable accommodations and services that are in compliance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of

1990 (ADA)/Americans with Disabilities Act Amendments Act of 2008 (ADAA). More details are available in the current Brandman University Academic Catalog.

<http://www.brandman.edu/current-students/resources/catalogs>