

**SOUTH SEATTLE COMMUNITY COLLEGE**

Academic Division

**COURSE OUTLINE**

Revised by: R. Downs

**DEPARTMENT:** Academic Program

**CURRICULUM:** Mathematics

**COURSE NUMBER:** MATH 102

**COURSE TITLE:** College Algebra

**TYPE OF COURSE:** Academic transfer

Special Requirement met: QSR

**AREA(S) OF KNOWLEDGE:** The Natural World: Science, Technology, and the Environment/The Language of Science; Basic Requirement - Math

**COURSE LENGTH:** One quarter

**CREDIT HOURS:** 5

**LECTURE HOURS:** 55

**LAB HOURS:** 0

**CLASS SIZE:** 35 (On-line: 25)

**PREREQUISITES:** MATH 098 with a 2.0 or better or appropriate placement score.

**COURSE DESCRIPTION:** Algebra skills and knowledge are reinforced and further developed in preparation for Math& 141.

**STUDENT LEARNING OUTCOMES ADDRESSED:**

**Computation**

- Identify, Interpret, and utilize higher level mathematical and cognitive skills (for those students who choose to move beyond the minimum requirements as stated above.)

**Critical thinking and Problem-Solving**

- Think critically in evaluating information, solving problems, and making decisions.

**Personal Responsibility**

- Be motivated and able to continue learning and adapt to change.
- Take pride in one's work.

## **GENERAL COURSE OBJECTIVES:**

Upon successful completion of this course the student will be expected to:

1. Determine, evaluate, and graph functions.
2. Understand the concept of a function.
3. Recognize and graph polynomial functions and find zeros.
4. Recognize graphs of rational functions, including identifying asymptotes.
5. Understand and use exponential and logarithmic functions.
6. Solve systems of equations involving two and three variables.
7. Use course knowledge to solve a variety of applied problems.
8. Understand the definition, notation and basic techniques of determinants.

## **TOPICAL OUTLINE:**

**APPROX. HOURS**

**55**

- I. Equations and inequalities
- II. Functions and graphs
- III. Polynomials and rational functions
- IV. Exponential and logarithmic functions
- V. Systems of equations and inequalities
- VI. Matrices and determinants

**Date: 3/16/10**

Course Prefix and Number: Math 102  
 Course Title: College Algebra

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1		Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1-8	Computation - Use mathematical operations
SLO 2.2	1-8	Computation - Apply quantitative skills
SLO 2.3	1-8	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1		Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2		Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1-8	Critical Thinking and Problem Solving -
SLO 5.1	1-8	Technology - Select and use appropriate technological tools
SLO 6.1		Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2		Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3		Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5		Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1		Information Literacy - Access and evaluate information
SLO 7.2		Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society