

MATH 109
Transition to Algebra for Applications (3.0 units)

Course Outline

Course Description: This one semester course combines MATH 102 (Part 1) and MATH 111 (Part 2). There are separate textbooks for Part 1 and Part 2. Part 1 is a review of intermediate algebra and Part 2 is a survey of a selection of mathematical ideas. A student must pass Part 1 in order to continue with Part 2. The class meets 5 hours per week.

PART 1 MATH 102:

Topics	# of Weeks	
Chapter 6	Factoring	1.0
Chapter 7:	Rational Expressions and Equations	1.0
Chapter 8:	Graphs, Relations, and Functions	1.0
Chapter 9:	Radicals and Rational Exponents	1.0
Chapter 10:	Quadratic Equations	0.5
Tests:	Two Tests and Reviews	0.5

Textbooks: Elementary and Intermediate Algebra by Sullivan, Struve, and Mazarella.
Published by Pearson/Prentice Hall.

Passing Part 1: In order to pass Part 1, a student must earn a grade of 70% or higher on each of unit 3 and unit 4. Unit 3 covers the material in chapters 6 and 7. Unit 4 covers the information in chapters 8 through 10. Retesting is allowed. During each test, a 4-function calculator will be provided. Students may not use their own calculators on the tests. If the student does not pass Part 1, s/he will be moved into a MATH 102 class.

PART 2 MATH 111:

	Topics	# of Weeks
Chapter 2	Matrices; Sections 2.1 through 2.5 (2.6 optional)	2.0
Chapter 3:	Linear Programming: A Geometric Approach; Sections 3.1 through 3.3	1.6
Chapter 4:	The Simplex Method; Sections 4.1 through 4.3 (4.5 optional)	2.0
Chapter 5:	Sets and Counting; Sections 5.1 through 5.7	2.0
Chapter 6:	Probability; Sections 6.1 through 6.4	1.4
Tests:	Two Tests and Reviews	1.0

Textbooks: Finite Mathematics & Its Applications, 10th edition by Goldstein, Schneider, and Siegel.
Published by Pearson/Prentice Hall
Note: Encourage the students to use a graphing calculator such as the TI 83.

Grading Policy: Grades will be based on 3 tests (each worth 22% of the course grade) and a final exam (worth 34% of the course grade). A student who successfully completes part 1 and part 2 earns 3 credits.

This General Education course is designed to meet the following four learning goals and the instructor should keep these goals in mind as he/she teaches this course.

General Education Goals:

1. Construct and evaluate logical arguments.
2. Apply and adapt a variety of appropriate strategies to solve mathematical problems.
3. Recognize and apply mathematics in contexts outside of mathematics.
4. Organize and consolidate mathematical thinking through written and oral communication.