

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

_____ Transfer Course x A.A. Degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: Math 60 - Intermediate Algebra

UNIT VALUE: 4

MINIMUM NUMBER OF SEMESTER HOURS: 64

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: A minimum grade of "C" in either Math 50 or Math 50B or eligibility determined through the math placement process.

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE: Graphic, numeric, analytic and applied perspectives on topics including linear, quadratic, exponential and logarithmic functions, exponents and radicals, linear and nonlinear systems of equations and inequalities.

SPECIFIC COURSE OBJECTIVES: The successful student will be able to:

1. Identify the difference between a function and a relation.
2. Analyze linear, quadratic, exponential, and logarithmic functions from a graphic, numeric, and analytic perspective.
3. Analyze and solve linear and nonlinear systems of equations and linear and nonlinear inequalities.
4. Analyze and solve applied problems using linear, quadratic, exponential, and logarithmic functions.
5. Analyze and apply properties of rational exponents.
6. Apply critical thinking and mathematical reasoning skills necessary in algebraic problem solving and related areas of endeavor.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

At least the following topics will be covered:

1. Fundamentals of the concept of functions, including function notation, domain, range, function composition, and inverse functions.
2. Graphing of linear and quadratic functions and their applications, including writing equations defining these functions.
3. Solving first and second degree equations and inequalities graphically, analytically, and numerically.
4. Fundamental operations with exponents and radicals and solving equations with same.
5. Applications involving rational expressions and solving equations with same.
6. Linear and non-linear systems of equations and linear and nonlinear inequalities.
7. Exponential and logarithmic functions, their graphs, their relationships, and their applications.
8. Additional topics may be included at instructor's discretion.

REQUIRED READING:

Aufmann, Richard N. and Joanne S. Lockwood. Algebra for College Students A Functions Approach. Boston: Houghton Mifflin Company, 1994.

OR

Larson, Roland E. and Robert P. Hostetler. Intermediate Algebra. Lexington: D.C. Heath and Company, 1992.

OR

Yoshiwara, Katherine, Bruce Yoshiwara, and Irving Drooyan. Modeling, Functions, and Graphs: Algebra for College Students. Boston: PWS Publishing Company, 1996.

OR

Lehmann, Jay. Intermediate Algebra: A Journey By Discovery of Curve Fitting. Upper Saddle River: Prentice-Hall, Inc., 1998.

OR

Any other text approved by the department.

SUGGESTED READING: None**REQUIRED WRITING:**

Algebraic problem-solving exercises on homework assignments, quizzes, and written tests are appropriate. In addition, students may be required to write reports from one paragraph to several pages explaining concepts or explaining and interpreting solutions to non-routine or applied problems.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

Outside assignments include reading the textbook, reviewing lecture material, and completing the assigned problem sets, as deemed necessary by the instructor.

INSTRUCTIONAL METHODOLOGY:**Check all that apply:**

- lecture
 laboratory
 lecture-laboratory combination
 directed study

DISTANCE LEARNING:

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply:

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
 Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
 Two-Way Video Conferencing (Two-way interactive video and audio)
 One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
 Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

A possible grading scale might be the following:

Class Participation	0 - 10%
Homework and/or other assignments	0 - 20%
Exams	60 - 80%
Final Exam	20 - 40%

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes ____ No x Number of times course may be taken for credit: ____

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Monica Brannick

SIGNATURES ON FILE