

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 50A Beginning Algebra Part I

UNIT VALUE: 2

MINIMUM NUMBER OF SEMESTER HOURS: 32

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: A minimum grade of "C" in Math 15 or eligibility determined through the math placement process.

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE: First part of Math 50, which emphasizes mathematical reasoning, problem solving, and real-world applications using numerical, algebraic, and graphical models. Topics include problem-solving techniques, algebraic expressions, polynomials, linear equations, linear inequalities, linear and nonlinear graphs, and integer exponents. Not open to students with credit in Math 50.

SPECIFIC COURSE OBJECTIVES: Successful students will be able to:

1. Use the properties of real numbers, order of operations, and properties of natural number exponents to simplify and reorganize polynomial expressions.
2. Use variables to represent relations from tables, graphs, problem situations, and geometric diagrams.
3. Analyze and solve linear equations and inequalities and interpret the solutions.
4. Analyze the connections between the numeric, algebraic, and graphic representations of linear relations.
5. Solve application problems involving linear relationships and interpret the solutions.
6. Formulate linear equations using points and slope.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE: At least the following topics will be covered:

1. Use of properties of real numbers, order of operations, and properties of integer exponents to reorganize and simplify polynomial expressions.
2. Introduction to the concept of variables to represent relationships from tables, graphs, problem situations, and geometric diagrams.
3. Comprehensive coverage of linear relationships including the formulations, graphing, analyzing and solving of linear equations.
4. Use of various problem-solving strategies to analyze problems and to formulate and carry out appropriate solution strategies.
5. Introduction to a variety of nonlinear relationships and their graphs.
6. Slope as a rate of change.

7. Addition and subtraction of polynomials.
8. The distributive property and factoring. To include finding the greatest common factor and factoring the greatest common factor from a polynomial expression.
9. Additional topics may be included at instructor's discretion.

REQUIRED READING:

Aufmann, Richard N., Vernon C. Barker, and Joanne S. Lockwood. Beginning Algebra with Applications. 5th Edition. Boston: Houghton Mifflin, 2000.

OR

Tussy, Alan S. and Gustafson, R. David. Elementary Algebra. 2nd Edition. Pacific Grove, CA: Brooks/Cole, 2002.

SUGGESTED READING: None

REQUIRED WRITING: Algebra 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):

Class Participation	0 - 10%
Homework	0 - 20%
Written 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: 1

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

CONTACT PERSON: Cindy Torgison

SIGNATURES ON FILE