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| **PALOMAR COLLEGE** COURSE OUTLINE FOR CREDIT COURSE |
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| * Courses numbered 1 - 49 are remedial or college preparatory courses which do not apply toward an A. A. Degree and are not intended for transfer. * Courses numbered 50-99 apply toward an AA Degree, but are not intended for transfer. * Courses numbered 100 and higher apply toward an AA Degree and/or are intended for transfer to a four-year college or university. |
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| **Course Number and Title:** MATH 60 Intermediate Algebra |
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| **Unit Value:** 4     **Lecture Hours Per Week:** 4     **Lab Hours Per Week:**     **Lecture/Lab Hours Per Week:** |
| **Grading Basis:** Grade/Pass/No Pass |
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| **Basic Skills Requirements:** Appropriate Language and/or Computational Skills. |
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| **Requisite(s)** To satisfy a prerequisite, the student must have earned a letter grade of A, B, C or P(Pass) in the prerequisite course, unless otherwise stated.  **Prerequisite:** A minimum grade of 'C' in MATH 50 or A minimum grade of 'C' in MATH 50B or eligibility determined through the math placement process  **Corequisite:** None  **Prerequisite: Completion of, or concurrent enrollment in** None  **Recommended Preparation:** None  **Limitation on Enrollment:** None |
| **Catalog Description:**  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. |
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| **Specific Course Objectives:** Upon successful completion of the course the 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. |
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| **Methods of Instruction:** Methods of Instruction may include, but are not limited to, the following:   1. Lecture |
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| **Content in Terms of Specific Body of Knowledge:**   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. |
| **Textbooks/Resources:** May Include Textbooks, Manuals, Periodicals, Software, and Other Resources   1. Aufmann, Richard N. and Joanne S. Lockwood. Algebra for College Students A Functions Approach. Boston: Houghton Mifflin Company, 1994. 2. or Larson, Roland E. and Robert P. Hostetler. Intermediate Algebra. Lexington: D.C. Heath and Company, 1992. 3. or Yoshiwara, Katherine, Bruce Yoshiwara, and Irving Drooyan. Modeling, Functions, and Graphs: Algebra for College Students. Boston: PWS Publishing Company, 1996. 4. Lehmann, Jay. Intermediate Algebra: A Journey By Discovery of Curve Fitting. Upper Saddle River: Prentice-Hall, Inc., , 1998. 5. or Any other text approved by the department. |
| **Required Reading:** |
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| **Suggested Reading:** |
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| **Critical Thinking:** |
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| **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. |
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| **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. |
| **Methods of Assessment:** Methods of Assessment may include, but are not limited to, the following:   * Class Participation * Exams/Tests * Homework |
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| **Open Entry/Open Exit:**  No, course is not offered as open entry/open exit. |
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| **Is Course Repeatable for Reason(s) Other Than Deficient Grade?** No |
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| **Contact Person:** Monika Brannick |
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