GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95020

Course Outline

Course: MATH 299 Division: 10 Also Listed As:

Term Effective: 200930, INACTIVE COURSE

Short Title: INT ALG FOR SCIENCE

Full Title: Intermediate Algebra for the Sciences

Contact Hours/Week	Units	Number of Weeks	Total Contact Hours
Lecture: 5	5	17.34	Lecture: 86.7
Lab: 0			Lab: 0
Other: 0			Other: 0
Total: 5			Total: 86.7

Credit Status: D - Credit - Degree Applicable

Grading Modes: L - Standard Letter Grade

Repeatability: Repeatability: N - Course may not be repeated

Schedule Types: 02 - Lecture and/or discussion

Course Description:

Review of basic concepts, linear equations and inequalities, graphs and functions, systems of linear equations, polynomials and polynomial functions, rational expressions and equations, roots, radicals and complex numbers, solving quadratic equations, exponential and logarithmic functions, and problem solving strategies. PREREQUISITE: Math 205, or Math 205A and Math 205B, or Math 206 with a grade of 'C' or better.

ARTICULATION and CERTIFICATE INFORMATION
Associate Degree:
CSU GE:
IGETC:
CSU TRANSFER:
Not Transferable
UC TRANSFER:
Not Transferable

PREREQUISITES:
Completion of MATH 205, as UG, with a grade of C or better.
OR
(Completion of MATH 205A, as UG, with a grade of C or better.
AND Completion of MATH 205B, as UG, with a grade of C or better.)
OR
Completion of MATH 206, as UG, with a grade of C or better.
OR
Score of 17 on Elementary Algebra
OR
Score of 15 on Intermediate Algebra

COREQUISITES:

STUDENT LEARNING OUTCOMES:
1. Analyze a variety of problems involving contemporary applications of linear, quadratic, exponential, logarithmic, and rational functions. Such applications include, but are not limited to bacterial growth, radioactive decay, earthquakes, compound and simple interest, and variation.
2. Determine and implement an appropriate method of solution for these problems
3. Graph linear, quadratic, logarithmic, and exponential functions, and utilize the graph in problem solving.
4. Solve moderately complex equations and inequalities, some of which they will set up.
5. Demonstrate proficiency with a scientific calculator.

TOPICS AND SCOPE:
Inactive Course: 12/08/2008
WEEK HOURS CONTENT:
1 5 Review/Readiness Test; sets and other basic concepts, properties of and operations with real numbers, order of operations, solving linear equations and formulas.
2 5 Applications of linear equations (word problems), additional application problems, linear inequalities, absolute value equations and inequalities, problem solving strategies involving linear equations and inequalities.
3 5 Cartesian coordiate system, distance and midpoint formulas, graphing linear equations, slope.
4 5 Slope-intercept equation of a line, point-slope equation of a line, applications, relations and functions.
5 5 Solving system of linear equations in two and three variables, problem solving strategies involving linear

functions and systems of equations.
6 5 Addition, subtraction, multiplication and division of polynomials.
7 5 Factoring monomial out of polynomial, by grouping, factoring a trinomial, difference of squares, and difference and sum of cubes.
8 5 Review of factoring, solving polynomial equations by factoring, problem solving strategies involving polynomial functions and equations.
9 5 Introduction to rational expressions, simplifying, multiplying and dividing rational expressions.
10 5 Adding and subtracting rational expressions, simplifying complex rational expressions.
11 5 Solving rational equations, applications, variation problems, problem solving strategies involving rational equations.
12 5 Introduction to roots and radicals, rational exponents, multiplying, dividing, and simplifying radical expressions.
13 5 Adding and subtracting radicals, solving radical equations, complex numbers.
14 5 Solving quadratic equations by completing the square and by quadratic formula, applications, graphing quadratic functions, standard form of quadratic functions, problem solving strategies involving radicals and quadratic functions.
15 5 Composite and inverse functions, graphing exponential and logarithmic functions, properties of logs.
16 5 Solving logarithmic and exponential functions, applications, natural exponential and logarithmic functions, problem solving strategies involving logarithmic and exponential equations.
17 5 Overview of problem solving strategies, review for final exam.
18 5 Final Exam Review
See content section of course outline.

METHODS OF INSTRUCTION:
Lecture, group work.
METHODS OF EVALUATION:
The types of writing assignments required:
Written homework
Other: Group and Individual Projects
The problem-solving assignments required:
Homework problems
Quizzes
Exams
Other: Group and Individual Projects
The types of skill demonstrations required:
None
The types of objective examinations used in the course:
Multiple choice
True/false
Matching items
Other category:

None
The basis for assigning students grades in the course:
Writing assignments: 10% - 20%
Problem-solving demonstrations: 70% - 85%
Skill demonstrations: 0% - 0%
Objective examinations: 5% - 10%
Other methods of evaluation: 0% - 0%

REPRESENTATIVE TEXTBOOKS:
Book similar to Angel, Allen R., ^uIntermediate Algebra for College Students^s, 5th Ed., Prentice Hall, 2000
Reading level of text: 10th grade
Other Materials Required to be Purchased by the Student:
Scientific calculator

SUPPLEMENTAL DATA:
Basic Skills: N
Classification: A
Noncredit Category: Y
Cooperative Education:
Program Status: 2 Stand-alone
Special Class Status: N
CAN:
CAN Sequence:
CSU Crosswalk Course Department:
CSU Crosswalk Course Number:
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: E
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000007337
Sports/Physical Education Course: N
Taxonomy of Program: 170100