GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95020

Course Outline

Course: MATH 8 Division: 10 Also Listed As:

Term Effective: 198670, INACTIVE COURSE

Short Title: PRECALCULUS

Full Title: Precalculus

Contact Hours/Week	Units	Number of Weeks	Total Contact Hours
Lecture: 5	5	17	Lecture: 85
Lab: 0			Lab: 0
Other: 0			Other: 0
Total: 5			Total: 85

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:

This course is designed to prepare students for the study of Mathematics 1A. Topics covered include graphs and functions, polynomial functions and theory of equations, exponential functions and logarithmic functions, trigonometric functions, trigonometric identities and conditional equations, analytic trigonometry, introduction to analytic geometry, systems of equations and inequalities, introduction to matrix theory and linear programming, Principle of Mathematical Induction, sequences and series, and introduction to probability. (Not currently offered.) PREREQUISITE: Mathematics 233 with a grade of 'C' or better.

ARTICULATION and CERTIFICATE INFORMATION
Associate Degree:
GAV B4, effective 198670
CSU GE:
CSU B4, effective 198670
IGETC:
IGETC 2A, effective 198670
CSU TRANSFER:
Transferable CSU, effective 198670
UC TRANSFER:
Transferable UC, effective 198670

PREREQUISITES:
Completion of MATH 233, as UG, with a grade of C or better.
OR
Completion of MATH 3, as UG, with a grade of C or better.
OR
Score of 33 on Intermediate Algebra
OR
Score of 13 on Pre-Calculus

COREQUISITES:

STUDENT LEARNING OUTCOMES:
1. NOTE: Throughout the semester, students are required to analyze and solve a variety of application-type problems. MATH 8 is intended to provide students with the background and skills requisite to solving a variety of problems in a precalculus course. This problem-solving approach will center on, but not be limited to, the following topics: graphs and functions
2. polynomial functions and theory of equations
3. exponential and logarithmic functions (advanced topics)
4. tigonometric functions
5. trigonometric identities and conditional equations
6. tigonometric analysis
7. systems of equations and inequalities
8. matrices and determinants
9. principle of mathematical induction
10. sequences and series

TOPICS AND SCOPE:
Inactive Course: 01/01/1999
1 5 Real Numbers and Algebraic Expressions.
2 5 Functions and Graphs.
3 5 Theorems about Zeros of Polynomials.
4 5 Graphing Rational Functions.
5 5 Exponential and Logarithmic Functions.
6 5 Trig Functions.
7 5 Graphs of Trig Functions and of Inverse Trig Functions.
8 5 Trig Identities and Multiple-Angle Formulas.
9 5 Trig Equations and the Reduction Formula.
10 5 Laws of Sines and Cosines and Applications
11 5 Vectors and Applications.

12 5 Polar Coordinates.
13 5 Matrices and Partial Fractions.
14 5 Nonlinear Systems of Equations and Linear Programming.
15 5 Sequences and Series.
16 5 Mathematical Induction and Counting Techniques.
17 5 Introduction to Probability and Course Review.
The instructor will assign homework problems to be solved at the end of each lecture. Homework exercises are based on the ratio of 2 hours of work/study for each hour of lecture.
COURSE OBJECTIVES:
**Understanding and mastery of the weekly description of content constitute student

METHODS OF INSTRUCTION:
Lecture/Discussion Mode. Regularly-scheduled, full-period, problem-solving, written exams throughout the semester. Credit for completed homework and class participation. Comprehensive, 2-hour written final exam.
NOTE: Generally, it is intended that all exams be closed-book exams, with no tables, notes, or calculators permitted (calculators are allowed for classwork and homework). Instructors should grade exams rigorously, with minimum partial credit. Take-home exams are prohibited.

REPRESENTATIVE TEXTBOOKS:
Christy, Dennis T., ^uPrecalculus^s, 1993, WM. C. Brown Publishers, DuBuque, Iowa.
Other Materials Required to be Purchased by the Student:
Students will also need a scientific calculator.

SUPPLEMENTAL DATA:
Basic Skills: N
Classification: A
Noncredit Category: Y
Cooperative Education:
Program Status: 1 Program Applicable
Special Class Status: N
CAN: MATH16
CAN Sequence:
CSU Crosswalk Course Department: MATH
CSU Crosswalk Course Number: 8
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: CCC000093189
Sports/Physical Education Course: N
Taxonomy of Program: 170100