GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95020

Course Outline

Course: MATH 206 Division: 10 Also Listed As:

Term Effective: 200930, INACTIVE COURSE

Short Title: BEGIN ALGEBRA T/P

Full Title: Beginning Algebra for Tech Prep

Contact Hours/Week	Units	Number of Weeks	Total Contact Hours
Lecture: 4	5	17.34	Lecture: 69.36
Lab: 3			Lab: 52.02
Other: 0			Other: 0
Total: 7			Total: 121.38

Credit Status: C - Credit - Degree Non Applicable

Grading Modes: L - Standard Letter Grade

Repeatability: Repeatability: N - Course may not be repeated

Schedule Types: 02 - Lecture and/or discussion
03 - Lecture/Laboratory
04 - Laboratory/Studio/Activity

Course Description:

This course covers all the material of Math 205 along with some basic geometry. It includes lecture, practical problems, and hands-on laboratory work. It covers operations with signed numbers, evaluation of expression containing numbers and letters, simplifying Algebraic expressions, equations, word problems, exponents, polynomials, factoring and special products, fractions, graphing, systems of equations, radicals, and quadratic equations working with lines and angles, shapes in 2 and 3 dimensions, and right triangles. This course is intended for students who will enter into any Associate Degree Technical program. Mathematics 205, 205A, 205B and 206 have similar course content. This course may not be taken by students who have completed Mathematics 205 or 205B with a grade of "C" or better. This course may be taken for Mathematics 205B credit (2.5 units) by those students who have successfully completed Mathematics 205A with a grade of "C" or better.
ADVISORY: Mathematics 402 with a grade of "C" or better within the past 2 years or pass placement exam.

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

PREREQUISITES:
Completion of MATH 402, as UG, with a grade of C or better.
OR
Score of 12 on Elementary Algebra

COREQUISITES:

STUDENT LEARNING OUTCOMES:
1. It is of primary importance that students not only demonstrate their ability to solve the problems presented in the course but also be able to relate and apply the theories in the course to other courses and the concepts in the course to courses such as physical science, nursing, biology and business.
2. Students will be able to solve linear equations, word problems involving linear equations, and formulas for a particular linear variable.
3. Students will also be able to graph lines, solve 2 equations with 2 variables, factor polynomials, solve inequalities, factor polynomials, work with scientific calculators, and work with basic geometry including lines and angles, shapes in 2 and 3 dimensions, and right triangles.

TOPICS AND SCOPE:
Inactive Course: 12/08/2008
1-2 10 Review of operations with signed numbers. This includes the basic definitions of what is an integer, rational number, irrational number, and the operations that are performed such as subtraction, addition, multiplication, and taking the absolute value. The commutative, associative, distributive, and inverse properties are covered. Factoring positive integers into primes. Use of the calculator will be covered. There will be 1 or 2 labs on these topics.
2-3 7 Evaluation and simplification of Algebraic expressions. Extensive work with grouping symbols and the order of operations will be emphasized. Basic definitions of exponents and zero will be covered. Combining similar terms and simplifying the product of fractions will be emphasized. There will be 1 or 2 labs on these topics.
3-4 11 Solving equations and all the properties necessary to achieve this, such as the + and x properties of equality, simplifying complicated equations, and the beginning of working with word problems. There will be 1 or 2 labs on these topics.

5 7 More word problems, inequalities, and the beginning of graphing including the devinition of slope of a line. There will be 1 or 2 labs on these topics.
6-7 10 Finish graphing. Solve equations with two variables by using graphing, substitution, and the elimination methods. There will be 1 or 2 labs on these topics.
7-8 11 The rules of exponents and the rules for the operations with polynomials, including simplification, special products, and the division of polynomials. There will be 1 or 2 labs on these topics.
9-10 14 Factoring binomials and trinomials, solving quadratic equations by factoring, and solving applied word problems using quadratics. Basic Geometry, working with lines and angles, right triangles, two and three dimensional shapes. At least 4 labs will be done.
11-13 21 Basic Geometry, working with lines and angles, right triangles, two and three dimensional shapes. At least 4 labs will be done.
14-15 11 Rational expressions and rational equations. Includes all operations, use of the LCD, and word problems. There will be 1 or 2 labs covering these topics.
15-16 7 Complex fractions, ration and proportions, and the basic rules for simplifying radicals. There will be 1 or 2 labs covering these topics.
16-17 7 More simplification of radicals operations with radicals, and equations with radicals. One lab will be done.
17-18 10 Completing the square, deriving the quadratic formula, and review of the course there will be 1 or 2 labs covering these topics.
Out of class assignments will include extensive homework problems to be worked on in groups in the lab and at home, preferably with others. Overall, the work will easily be over 2 hours per lecture unit granted.
COURSE OBJECTIVES:
At the conclusion of this course the student will be able to understand and do the following:
1. Student performance objectives constitute the mastery of the skills necessary to solve the problems along with a thorough understanding of the weekly content described above. Students will be able to apply what they learned in Math 206 to problems in the sciences, nursing, business, and their daily lives.

METHODS OF INSTRUCTION:
Lecture/discussion format and extensive use of cooperative, group learning. Regularly scheduled, full-period, in-class, written exams will be given throughout the semester. Cooperative and small group tests may also occur, depending upon the instructor. Extensive group work in the labs will be required.

REPRESENTATIVE TEXTBOOKS:
McKeague, Charles P., ^uElementary Algebra^s, 4th Edition.
Harcourt, Brace, Jovanovich, 1990.
OTHER MATERIALS REQUIRED TO BE PURCHASED BY THE STUDENT:
Lab Manual

SUPPLEMENTAL DATA:
Basic Skills: B
Classification: B
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: B
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: E
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000287562
Sports/Physical Education Course: N
Taxonomy of Program: 493042