GAVILAN COLLEGE

5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: MATH 205B DIVISION: 10 ALSO LISTED AS: MATH 205

TERM EFFECTIVE: Fall 2018 **Inactive Course**

SHORT TITLE: SECOND HALF ALGEBRA

LONG TITLE: Second Half of Elementary Algebra

Units	Number of Weeks		Contact Hours/Week		Total Contact Hours
2.5	18	Lecture:	4	Lecture:	72
		Lab:	0	Lab:	0
		Other:	0	Other:	0
		Total:	4	Total:	72

COURSE DESCRIPTION:

This course contains the material covered in the second half of the Elementary Algebra Course. It will cover factoring polynomials, solving quadratic equations by factoring, rational expressions, radicals, and solving quadratic equations. In addition, the course will review applications involving linear equations of one and two variables, finding slopes and graphing linear equations, solving systems of equations with two variables, and solving linear inequalities. Math 205, 205A and 205B, and 206 have similar course content. This course may not be taken by students who have completed Math 205 or 206 with a grade of 'C' or better. PREREQUISITE: Math 205A with a grade of 'C' or better. ADVISORY: Concurrent enrollment in Guidance 563B is advised.

PREREQUISITES:

Completion of MATH 205A, as UG, with a grade of C or better.
OR
Completion of MATH 411, as UG, with a grade of C or better.

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

02 - Lecture and/or discussion

STUDENT LEARNING OUTCOMES:

1. Apply the laws of exponents to algebraic expressions.
Measure: Homework, Quizzes, Exams
ILO: 2

2. Find the slope and equation of a line.
Measure: Homework, Quizzes, Exams
ILO: 2

3. Graph linear equations.
Measure: Homework, Quizzes, Exams
ILO: 2

4. Solve systems of equations in two variables and their applications.
Measure: Homework, Quizzes, Exams
ILO: 2

5. Define a polynomial and perform the operations of addition, subtraction, multiplication, and division of polynomials.
Measure: Homework, Quizzes, Exams
ILO: 2

6. Factor polynomials and solve polynomial equations in one variable.
Measure: Homework, Quizzes, Exams
ILO: 2

7. Simplify and perform operations with rational expressions.
Measure: Homework, Quizzes, Exams
ILO: 2

8. Determine square roots, simplify radicals, and perform basic operations with radicals.
Measure: Homework, Quizzes, Exams
ILO: 2

9. Solve quadratic equations by using the quadratic formula
Measure: Homework, Quizzes, Exams
ILO: 2

10. Solve applications of linear equations including geometric applications.
Measure: Homework, Quizzes, Exams
ILO: 2

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS
Inactive Course: 03/26/2018
As of Fall 2009, GAV GE B4 no longer applicable.
Each week, students will be expected to read assigned text sections and complete assigned homework.

6 Hours

The power and product rules of exponents. SPO - Utilize problem-solving strategies to solve applications. Apply the product and power rules of exponents.

6 Hours

Utilize the quotient rule for exponents. Write numbers in scientific notation and perform operations using a scientific calculator. Add, subtract, and multiply polynomials. SPO - Apply quotient rules for exponents. Write numbers using scientific notation. Use a calculator to perform operations with numbers in scientific notation. Add, subtract, and multiply polynomials.

6 Hours

Special products and dividing polynomials. Greatest common factors, factor by grouping and basic factoring of polynomials. SPO - Use special products to multiply polynomials. Divide polynomials. Factor polynomials using GCF and grouping. Factor trinomials.

8 Hours

Factoring trinomials, including special factoring rules. Solve quadratic equations by factoring. SPO - Factor trinomials of the form ax^2 +bx +c and solve equations of the same form by factoring.

8 Hours

Solve applications using quadratic equations. Introduce the quadratic formula using equations with rational solutions. Simplify rational expressions and add, subtract, multiply, and divide them. SPO - Solve applications using quadratic equations. Utilize factoring and the quadratic formula. Simplify rational expressions involving operations.

6 Hours

Evaluate roots and add, subtract, multiply, and simplify radicals. SPO - Evaluate square roots along with adding, subtracting, multiplying, and simplifying radicals.

6 Hours

Dividing radicals and rationalizing the denominators with radicals. SPO - Divide radicals and rationalize denominators.

6 Hours

Solve quadratic equations utilizing the quadratic formula where the solutions contain radicals. SPO - Solve quadratic equations that contain radicals.

6 Hours

Solving linear equations. SPO - Use the properties of linear equations to solve them.

6 Hours

Graphs, linear equations in two variables, slopes and equations of a line. SPO - Read graphs and recognize and graph linear equations in two variables. Determine the slope and equation of a line.

6 Hours

Solve systems of linear equations by graphing, substitution, and elimination. Applications involving linear systems. SPO -Solve systems of linear equations by graphing, substitution, and elimination.

6 Hours

Applications of linear equations and some geometric applications. SPO - Utilize problem-solving strategies to solve applications.

4 Hours
Final exam, including the review topics from Math 205A.

METHODS OF INSTRUCTION:
Lecture/Discussion format and extensive use of cooperative, group learning.

METHODS OF EVALUATION:
CATEGORY 1 - The types of writing assignments required:
Percent range of total grade: 0 % to 0 %

If this is a degree applicable course, but substantial writing assignments are not appropriate, indicate reason:
Course is primarily computational
Course primarily involves skill demonstration or problem solving

CATEGORY 2 -The problem-solving assignments required:
Percent range of total grade: 70 % to 100 %
Homework Problems
Quizzes
Exams

CATEGORY 3 -The types of skill demonstrations required:
Percent range of total grade: 0 % to 0 %

CATEGORY 4 - The types of objective examinations used in the course:
Percent range of total grade: 0 % to 30 %

CATEGORY 5 - Any other methods of evaluation:
Percent range of total grade: 0 % to 5 %

REPRESENTATIVE TEXTBOOKS:
Required:
Lial, Hornsby, and McGinnis, Elem. Algebra, 10th edition, Pearson, 2008, or other appropriate college level text.
Reading level of text: 12th gradeVerified by: Ken Wagman

ARTICULATION and CERTIFICATE INFORMATION
Associate Degree:
CSU GE:
IGETC:
CSU TRANSFER:

Not Transferable

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:
Basic Skills: B
Classification: Y
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: CCC000253587
Sports/Physical Education Course: N
Taxonomy of Program: 170100