GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: MATH 415 DIVISION: 10 ALSO LISTED AS:

TERM EFFECTIVE: Spring 2021 CURRICULUM APPROVAL DATE: 12/8/2020

SHORT TITLE: MATH IMMERSION REVIEW ALGEBRA

LONG TITLE: Math Immersion Review - Algebraic Concepts

Units	Number of Weeks	Type	Contact Hours/Week	Total Contact Hours
1 TO 3	18	Lecture:	1 TO 3	18 TO 54
		Lab:	0	0
		Other:	0	0
		Total:	1 TO 3	18 TO 54

COURSE DESCRIPTION:

A remedial mathematics course designed for those students who need to learn, or re-learn the fundamental concepts of math. The primary emphasis is on algebraic expressions, linear/quadratic equations and applications, polynomials, graphing, and functions. This is a pass/no pass course. Units earned in this course do not count toward the associate degree and/or certain certificate requirements. This class is an intense preparation for Math 5, Math 6, Math 7, and Math 8A.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES
- P - Pass/No Pass

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:
- 02 - Lecture and/or discussion
- 05 - Hybrid
- 71 - Dist. Ed Internet Simultaneous
- 72 - Dist. Ed Internet Delayed

STUDENT LEARNING OUTCOMES:

By the end of this course, a student should:

1. Identify and analyze functions and find their domains and ranges.

2. Analyze and solve linear equations in one and two variables

3. Identifying and evaluating line slope and interpreting meaning of slope and y-intercept in the context of real world problems

4. Solve a variety of problems involving applications of linear and quadratic functions

5. Identify and solve quadratic equations.

6. Graph linear and non-linear relations and utilize the graph in problem solving.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 12/8/2020

1 Unit Class:

4 hours

Content: Fractions, percentages, solving real life problems involving percentages

Student Performance Objectives (SPO): Students will be able to complete operations with common fractions and

rational expressions, convert percents to decimals to fractions, fractions to percents and vice versa. Students will be able

to set up proportions to solve real live percentage problems.

5 Hours

Content: Solving linear equations and formulas, solving real life problems based on linear equations

Student Performance Objectives (SPO): Students will be able to evaluate formulas, solve a wide variety of linear equations, and solve real life problems using linear equations

7 Hours

Content: Solving linear equations in two variables, Cartesian system of coordinates, graphing linear and non-linear relations,

collecting data and working with data

Student Performance Objectives (SPO): Students will be able to solve linear equations with two variables, to plot point based on

given relations, create graphs representing real life problems, collect data and analyze graph based on these data.

2 hours

Final Exam

2 Unit Class:

Covers all the topics of 1 unit class plus:

9 Hours

Content: Slopes, intercepts, equations of a line, applications

Student Performance Objectives (SPO): Students will be able to find the equation of a line, solve application problems.

9 Hours

Content: Functions, inverse functions, domains and ranges of the relations, inverse functions, compositions of the functions

Student Performance Objectives (SPO): Students will be able to identify the function, find the domain and the range, given two functions f and g, find f+g, f-g, and fg as well as composite functions.

3 Unit Class

Covers all the topics of 2 Unit class plus:

6 Hours

Content: Solving systems of equations in two and three variables and applications

Student Performance Objectives (SPO): Students will be able to solve systems of equations using graphing, substitution, and elimination, and solve application problems involving systems of equations.

6 Hours

Content: Operations with polynomials

Student Performance Objectives (SPO): Students will be able to add, subtract, divide, and multiply polynomials.

6 Hours

Content: Factoring polynomials

Student Performance Objectives (SPO): Students will be able to factor any polynomial using grouping, special products, factoring out the common factor.

METHODS OF INSTRUCTION:

Lectures, group work

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours: 36

Assignment Description:

1 unit

1. Analyze and study pertinent text material, solved examples and lecture notes.
2. Apply principles and skills covered in class by solving regularly-assigned homework problems.
3. Regularly synthesize course materials in preparation for exams.

Required Outside Hours: 72

Assignment Description:

2 units

1. Analyze and study pertinent text material, solved examples and lecture notes.
2. Apply principles and skills covered in class by solving regularly-assigned homework problems.
3. Regularly synthesize course materials in preparation for exams.

Required Outside Hours: 108

Assignment Description:

3 units

1. Analyze and study pertinent text material, solved examples and lecture notes.
2. Apply principles and skills covered in class by solving regularly-assigned homework problems.
3. Regularly synthesize course materials in preparation for exams.

METHODS OF EVALUATION:

Problem-solving assignments

Percent of total grade: 90.00 %

Homework problems, in-class group work

Objective examinations

Percent of total grade: 10.00 %

In-class exams, quizzes

REPRESENTATIVE TEXTBOOKS:
Lial/Hornsby/McGinnis. Beginning and Intermediate Algebra. Pearson,2019.
ISBN: ISBN-10 : 013489599,1 ISBN-13 : 978-0134895994
Reading Level of Text, Grade: 7th Verified by: Elena Dachkova

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: CCC000532285
Sports/Physical Education Course: N
Taxonomy of Program: 170100