GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: MATH 416 DIVISION: 10 ALSO LISTED AS:

TERM EFFECTIVE: Summer 2021 CURRICULUM APPROVAL DATE: 06/8/2021

SHORT TITLE: MATH FOR SUMMER BRIDGE

LONG TITLE: Math for Summer Bridge

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:

This class is a developmental mathematics course for students new to Gavilan College who are participating in the Summer Bridge Program or other special cohorts. The purpose of the class is to review and hone basic math skills, acclimate the student to the rigors of college level work, and improve other student skills needed for learning and academic achievement. The primary mathematical focus is on prealgebra topics such as operations with whole numbers, fractions, decimals, percentage and real life problems. Students can also get practice with other topics in Algebra I such as solving linear equations, graphing linear functions, and factoring. This is a pass/no pass course. Units earned in this course do not count toward the associate degree and/or certain certificate requirements.

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. Perform basic operations with whole numbers, fractions, decimals, percentages and signed numbers without the use of a calculator

2. Develop and utilize math specific and more general study skills and test taking strategies. Measure:

3. Formulate and solve real life problems with fractions, decimals, and percentage. Measure:

4. Identify an equation as linear or quadratic and use an appropriate method to solve.

5. Analyze a linear equation in two variables, graph the equation and use the equation to solve real live applications.

6. Add, subtract, multiply, divide and factor polynomials.

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

Curriculum Approval Date: 06/8/2021

1 Unit Course Content:

1 Hours

Content: Assessment Exam

Student Performance Objectives (SPO): Students will take an online assessment exam to determine their strengths and weaknesses.

5 Hours

Content: Whole Numbers, Divisibility Rules and Prime factorization

Student Performance Objectives (SPO):

Complete problems on addition, subtraction, multiplication, division and exponents with whole numbers without a calculator.

Students will evaluate numerical expressions using the Order of Operations without a calculator.

Students will be able to identify factors of a number using divisibility rules.

Students will be able to identify prime numbers and prime factor 3- 5 digit numbers

6 Hours

Content: Fractions

Student Performance Objectives (SPO):

Students will demonstrate the ability to convert decimals to fractions and vise-versa, perform all the operations with decimals and solve the application problems.

6 Hours

Content: Decimals

Student Performance Objectives (SPO): Students will be able to identify place value in decimal numbers, convert decimals to fractions and vise-versa, perform all the operations with decimals and solve the application problems.

2 Unit Class: 1 unit

+

5 Hours

Content: Percentage

Student Performance Objectives (SPO):

Student will be able to convert between percent, fraction, and decimal an solve percentage problems.

Students will be able to set up and solve a problems involving percentages and their applications

6 Hours

Content: Formulas and Linear Equations

Student Performance Objectives (SPO):

Students will be able to evaluate formulas, solve a wide variety of linear equations.

7 Hours

Content: Linear Functions

Student Performance Objectives (SPO):

Students will be able to find the equation of a line, graph the line, identify slope, intercepts and other points on the line, and solve application problems.

3 units: 2 units

+

7 Hours

Content: Polynomials

Student Performance Objectives (SPO):

Students will be able to add, subtract, divide, and multiply polynomials.

6 Hours

Content: Factoring

Student Performance Objectives (SPO):

Students will be able to factor any polynomial using grouping, special products, factoring out the common factor.

5 Hours

Content: Solving polynomial equations plus applications

Student Performance Objectives (SPO):

Students will be able to solve polynomial equations by factoring and applications involving polynomials

METHODS OF INSTRUCTION:

Lecture, group work

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours: 6

Assignment Description:

Homework assignment: Complete problems on addition, subtraction, multiplication, division and exponents with whole numbers without a calculator.

Required Outside Hours: 6

Assignment Description:

Homework assignment: Simplify fractions, find the LCD of fractions, add, subtract, divide, and multiply fractions w/o

calculator and solve related application problems.

Required Outside Hours: 6

Assignment Description:

Homework assignment: Convert decimals to fractions and vise-versa, perform all the operations with decimals and solve the application problems.

Required Outside Hours: 6

Assignment Description:

(For 2-unit class) Homework Assignment: Perform conversion between percent, fractions, and decimals and solve problems involving percentages and their applications.

Required Outside Hours: 6

Assignment Description:

(For 2-unit class) Homework Assignment: Find the equation of a line, graph the line, identify slope, intercepts and other points on the line, and solve application problems.

Required Outside Hours: 6

Assignment Description:

(For 3-unit class) Homework Assignment: Factor polynomials using grouping, special products and factoring out the common factor.

Required Outside Hours: 6

Assignment Description:

(For 3-unit class) Homework Assignment: Add, subtract, divide, and multiply polynomials.

Required Outside Hours: 6

Assignment Description:

(For 2-unit class) Homework Assignment: Evaluate formulas and solve various linear equations.

Required Outside Hours: 6

Assignment Description:

(For 3-unit class) Homework Assignment: Solve polynomial equations by factoring and solve application problems involving polynomials.

METHODS OF EVALUATION:

Category 1 - The types of writing assignments required:
Percent range of total grade: 0 % to %
Category 2 - The problem-solving assignments required:
Percent range of total grade: 90 % to 100 %
Homework Problems
Quizzes
Exams
Other: In class group work
Category 3 - The types of skill demonstrations required:
Percent range of total grade: 0 % to %
Category 4 - The types of objective examinations used in the course:
Percent range of total grade: 0 % to 10 %
Other: group projects, learning skills assignments

REPRESENTATIVE TEXTBOOKS:

K. Elayn Martin-Gay. Prealgebra and Introductory Algebra. New Jersey: Pearson/Prentice Hall,2019.
ISBN: 978-0134707631
Reading Level of Text, Grade: 12 Verified by: K. 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: C
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: E
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000571983
Sports/Physical Education Course: N
Taxonomy of Program: 170100