

Course Outline

COURSE: MATH 414 **DIVISION:** 10 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2021 **CURRICULUM APPROVAL DATE:** 06/8/2021

SHORT TITLE: MATH IMMERSION BASIC LEVEL 2

LONG TITLE: Math Immersion Review - Basic Concepts Level 2

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
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 developmental immersion math course designed for those students who need to learn, re-learn, or re-fresh the fundamental concepts of Math. The primary emphasis is on fractions, signed numbers, linear equations, algebraic structures and word problems. This class is an intense preparation for Math 402, Math 411, Math 430 and Math 235. This is a pass/no pass course. Units earned in this course do not count toward the associate degree 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 fractions and solve linear equations involving fractions
2. Apply addition and multiplication properties to solving linear equations.
3. Formulate and solve word problems using a variety of strategies
4. Name algebraic structures using the order of operations
5. Identify and discriminate algebraic structures

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

Curriculum Approval Date: 06/8/2021

1 unit Class

Pre - Test 1 hours

Signed numbers - 6 .5 hours

Classwork/Homework

Complete problems on operations with signed numbers including the order of operations problems.

Performance Objective

Students will demonstrate the ability to perform operations with signed numbers.

Fractions - 7.5 hours

Classwork/Homework

Students will be able to complete basic operations with signed fractions and solve linear equations involving fractions.

Performance Objective:

Students will demonstrate ability to simplify fractions, find the LCD of fractions, and perform basic operations with fractions w/o calculator, and solve equations involving fractions + related application problems.

Solving word problems - 1 hour

Classwork/Homework

Performance Objective:

Students will be able to identify and apply general strategies complete computations for application problems.

Final Exam - 2 hours.

2 Unit Class

Covers all the topics of 1 unit Class +

Simplifying Algebraic Expressions - 3.5 hours.

Classwork/Homework

Performance Objective -

Students will be able to identify like terms, combine them, and use the distributive property.

Linear Equations/Applications- 7.5 hours

Performance Objective

Students will be able to apply Multiplication and Addition Properties of Equality to solution of Linear Equations. Students will be able to formulate, analyze, and solve real life problems.

Algebraic structures - 2.5 hours

Classwork/Homework

Performance Objective:

Students will be able to identify and discriminate different algebraic structures, i.e. difference of two squares from the square of the difference.

Naming algebraic structures - 3.5 hours

Performance Objective

Students will be able to use the algebraic and symbolic language to express and name the algebraic structures.

Final Exam - 2 hours

METHODS OF INSTRUCTION:

Lecture/discussion format, extensive use of group work, individualized instruction with aide interaction.

When proficiency is demonstrated, students have the option to move on to the next area of math within the same unit.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours: 6

Assignment Description:

HW Assignment: Problems on operations with signed numbers including the order of operations problems.

Required Outside Hours: 6

Assignment Description:

HW assignment: Basic operations with signed fractions and linear equations involving fractions.

Required Outside Hours: 6

Assignment Description:

HW Assignment: Multiplication and Addition Properties of Equality to solution of Linear Equations

Required Outside Hours: 6

Assignment Description:

(For 2-unit class) Homework Assignment: Identify like terms, combine them, and use the distributive property.

Required Outside Hours: 6

Assignment Description:

(For 2-unit class) Homework Assignment: Apply Multiplication and Addition Properties of Equality to solution of Linear Equations. Formulate, analyze, and solve real life problems.

Required Outside Hours: 6

Assignment Description:

(For 2-unit class) Homework Assignment: Identify and discriminate different algebraic structures, use algebraic and symbolic language to express and name the algebraic structures.

METHODS OF EVALUATION:

Problem-solving assignments

Percent of total grade: 90.00 %

Percent range of total grade: 90 % to 100 % Homework Problems; Exams

Other methods of evaluation

Percent of total grade: 10.00 %

Percent range of total grade: 0 % to 10 % Completing "brainstorming" projects/problems

REPRESENTATIVE TEXTBOOKS:

Verified by:Ken Wagman. Basic Mathematics for College Students, Brooks/Cole, or other appropriate college level text.. 2019.

ISBN: 1337618403

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: B

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: E

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000529241

Sports/Physical Education Course: N

Taxonomy of Program: 170100