

Course Outline

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

TERM EFFECTIVE: Spring 2016 **CURRICULUM APPROVAL DATE:** 10/12/2015

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 remedial 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

STUDENT LEARNING OUTCOMES:

1. Perform Basic operations with fractions and solve linear equations involving fractions

Measure: Homework assignment, exam

PLO:

ILO: 2,1,6

GE-LO:

Year assessed or anticipated year of assessment: Spring 2018

2. Apply addition and multiplication properties to solving linear equations.

Measure: HW, exam

PLO:

ILO: 1,2,3

GE-LO:

Year assessed or anticipated year of assessment: Spring 2018

3. Formulate and solve word problems using a variety of strategies

Measure: Homework assignment, exam

PLO:

ILO: 2,1

GE-LO:

Year assessed or anticipated year of assessment: Spring 2018

4. Name algebraic structures using the order of operations

Measure: Homework assignment, exam

PLO:

ILO: 1,2,6

GE-LO:

Year assessed or anticipated year of assessment: Spring 2018

5. Identify and discriminate algebraic structures

Measure: class report, exam

PLO:

ILO: 1,2,3

GE-LO:

Year assessed or anticipated year of assessment: Spring 2018

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

Curriculum Approval Date: 10/12/2015

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.

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

Exams

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 %

CATEGORY 5 - Any other methods of evaluation:

Percent range of total grade: 0 % to 10 %

Completing "brainstorming" projects/problems

REPRESENTATIVE TEXTBOOKS:

Required:

Alan Tussy, Developmental Mathematics for College Students, Brooks/Cole, 2013, or other appropriate college level text.

Reading level of text, Grade: 12th Verified by: Ken Wagman

Other textbooks or materials to be purchased by the student: none

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