

**FRESNO CITY COLLEGE
COURSE OUTLINE OF RECORD**

Course Subject and Number <p align="center"><u>Mathematics 60B</u></p> <hr/> Course Title <p align="center"><u>Arithmetic Review: Fractions</u></p> <hr/>	Discipline(s) <p align="center"><u>Mathematics</u></p> <hr/> Term Effective: <p align="center"><u>Fall 2001</u></p> <hr/>
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Catalog Description	<input type="checkbox"/> no change	<input type="checkbox"/> revised/clarified	<input checked="" type="checkbox"/> new (check one)
Prerequisite	<input type="checkbox"/> no change	<input type="checkbox"/> revised/clarified	<input checked="" type="checkbox"/> new (check one)
Corequisite	<input type="checkbox"/> no change	<input type="checkbox"/> revised/clarified	<input checked="" type="checkbox"/> new (check one)
Advisory	<input type="checkbox"/> no change	<input type="checkbox"/> revised/clarified	<input checked="" type="checkbox"/> new (check one)
Units, hours, repeatability, credit/no credit, number of weeks (If revised is checked, underline item(s) revised above)	<input type="checkbox"/> no change	<input type="checkbox"/> revised	<input checked="" type="checkbox"/> new (check one)

1 unit(s) 3 lecture hour(s) 2 laboratory hour(s) 0 number of repeats (maximum = 3)

X credit/no credit only 6 number of weeks

Prerequisite: Math 60A

Corequisite: None

Advisory: Eligibility for English 25 and 26 or English 53 or ESL 67 and 68 recommended.

Description: Review of arithmetic involving computing with fractions. Emphasis on word problems and applications of fractions.

Entry Level Skills: Upon entering the course, the student should be able to:

1. employ various techniques to recognize and use new vocabulary;
2. demonstrate ability to determine literal and interpretive meaning;
3. demonstrate ability to analyze material critically;
4. demonstrate skills to employ reading strategies and the reading process;
5. use whole numbers;
6. solve application problems involving whole numbers in consumer arithmetic, simple business applications, and deductive reasoning; and
7. analyze and interpret word problems to decide which principles, concepts, and operations to use and in what order to solve problems.

Requested Credit Classification (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Degree Applicable | <input type="checkbox"/> Noncredit |
| <input checked="" type="checkbox"/> Nondegree Applicable | <input type="checkbox"/> Transfer Level |

Course contains an international component.

Course contains American pluralism and identity content.

Expected Outcomes/Objectives: Upon successful completion of the course, the student will be able to:

1. demonstrate an understanding and use of fractions;
2. solve application problems with fractions involving consumer arithmetic, simple business applications, and deductive reasoning; and
3. analyze and interpret word problems with fractions to decide which principles, concepts, and operations to use and in what order to solve the problems.

Texts, Other Readings, and Materials:

Text(s)

Johnston, C.L., Willis, A.T., and Lazarus, Jeanne, Essential Arithmetic, 7th Edition, PWS Publishing: Boston, MA, 1995.

Primarily College Level

Primarily Not College Level

Professional Judgment

(How Determined)

Out-of-Class Assignments

____ 4 ____ hours per week (or equivalent)

Permissible exceptions to the common interpretation as stated are as follows: (AR 7200) 1 2 3 4 (circle one)

List types:

1. Text material reading.
2. Assigned problems from the text.
3. Drill and practice assignments.

Class participation and assignments require and develop critical thinking (see Expected Outcomes/Objectives). Describe how:

Solving problems requires that the student analyze the problem so as to identify what is being sought. One must then make decisions regarding a correct sequence of steps for solving the problems.

Primarily College Level

Not Primarily College Level

2 hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit.

Ratio of amount of work per unit of credit required by curriculum committee for a nondegree credit course is met.

Assessment:

Grades will be based upon:

ESSAY*

Students will be required to write notes which explain the procedures (steps) explained in class, but 25% of the grade will not be based on essay.

COMPUTATION*

Student must achieve a score of 80% or better on the final examination to receive credit for the course.

NONCOMPUTATIONAL PROBLEM SOLVING*

Examples:

SKILL DEMONSTRATION

Kind:

MULTIPLE CHOICE

OTHER: Describe. (Examples: tests, quizzes, homework)

***For degree credit: At least one of the first three boxes above must be checked, and if "essay" is not checked, it must be explained why essays are an inappropriate basis for at least 25% of the grade in the course.**

Expanded Description of Content and Methods:

Content:

Fractions

- A. Basic Operations and Order**
 - 1. Meaning of a fraction
 - 2. Proper and improper
 - 3. Mixed numbers
 - 4. Number line
 - 5. Comparison

- B. Change of Form**
 - 1. Review properties of one
 - 2. Reducing
 - 3. Building

- C. Operations**
 - 1. Multiplication
 - 2. Division
 - 3. Powers and roots
 - 4. Addition
 - 5. Subtraction
 - 6. Complex fractions

- D. Applications**
 - 1. Changing between fractions and decimals
 - 2. Mixed word problems

Method:

- 1. **Lecture:** This time is devoted to clarifying those areas in the previous week's work which caused difficulty. The instructor will work specific problems requested by the group, as time permits, and will introduce the next week's work by covering those topics which traditionally cause difficulty.

- 2. **Lab:** During lab hours, students will be divided into small groups according to the module they are working on. Each group is overseen by a tutor. Students will be assigned drill and practice sheets, critical thinking or writing assignments, logic problems, and computer-assisted instruction assignments. Additional assignments of audio and video material will be individually prescribed as needed. Students will work together and on their own with the aid of the tutor.

Instructor References:

- Reading Across the Curriculum: Strategies for Improving Reading Skills in Content Courses, Los Rios Community College District: Consumnes River College, 1987.**
- Simmons, JoAn McGuire, ed., The Shortest Distance to Learning: A Guidebook to Writing Across the Curriculum, Los Angeles Community College District: Los Angeles, CA, 1983.**
- Working With Underprepared Students: Strategies From Faculty, Long Beach Community College District, 1987.**