

**San Bernardino Valley College
Course Outline**

Math 942C – Vocational Arithmetic: Ratios, Proportions and Percents

- I. Mathematics: MATH 942C – Vocational Arithmetic: Ratios, Proportions and Percents
1 hour lecture = 1 unit

This is the third of a basic skills sequence emphasizing arithmetic. The skills to be learned include the use of ratios, proportions and percents as they apply to vocational fields.

Prerequisite: None

- II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: Once

- III. EXPECTED OUTCOME FOR STUDENTS:

Upon completion of the course, the student will be able to:

- a) Use ratios
- b) Use proportions
- c) Use percents
- d) Solve word problems with real life and work related applications utilizing the learned basic skills

- IV. Course Content:

This course will include the following skills to meet the indicated objectives:

- A. Ratios and proportions
 1. Introduction to ratios and proportions
 2. Applications of ratios and proportions
 3. Applications of direct and indirect proportions
- B. Percents
 1. Introduction to percents
 2. The percent proportion
 3. Applications of percents

- V. Methods of instruction:

- a) This course will be computer-assisted and primarily compute-managed and includes supplemental materials which may or may not be computer based. Students will work independently through a series of computer generated activities designed to increase basic math skills using ratios, proportions and percents. Following a pre-test, students will be placed at appropriate individualized levels and proceed through the activities at their own pace. The instruction will begin upon enrollment in the course, under the supervision of the instructor of record. Periodic meetings between the students and the instructor of record will be arranged to discuss computer managed instruction data.
- b) Sample of assignment(s):

Are the ratios equivalent?

- 1) 4:7 and 12 :21

- 2) 12 is what percent of 8 ?

VI. Methods of evaluation:

- a) Student will submit, to the instructor of record, periodic written reports of the work they have completed.
- b) All assignments will be completed in an independent study format. Upon completion of this practice, students will be required to demonstrate progress by means of a post test and/or other appropriate assessment measures.
- c) Sample test questions:

Are the ratios equivalent?

- 1) 2:5 and 3:7

- 2) What percent of 50 is 20 ?

VII. Typical text(s):

No text would be required in this course as appropriate computer software would be the "text". Students may need to purchase, supplemental workbooks designed or approved by mathematics department faculty covering the content of this course, through the bookstore.

Invest Software and
For example: Novak, Basic Mathematics, D. C. Heath

VIII. Other supplies required of students: None