San Bernardino Valley College
Course Outline

Math 942B – Vocational Arithmetic: Fractions and Decimals

I.   Mathematics: MATH 942B – Vocational Arithmetic: Fractions and Decimals
        1 hour lecture = 1 unit

        This is the second of a basic skills sequence emphasizing arithmetic. The skills to be
        learned include addition, subtraction, multiplication and division of fractions and decimals
        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)   Add fractions and decimals
        b)   Subtract fractions and decimals
        c)   Multiply fractions and decimals
        d)   Divide fractions and decimals
        e)   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.   Fractions
                1.   Equivalent fractions
                2.   Multiplication and division of fractions
                3.   Addition and subtraction of fractions
                4.   Mixed fractions

        B.   Decimals
                1.   Reading, writing and rounding decimals
                2.   Addition, subtraction and multiplication of decimals
                3.   Division of decimals
                4.   Changing fractions to decimals

V.   Methods of instruction:
        a)   This course will be computer-assisted and primarily computer-managed and
                includes supplementary 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 fractions and decimals.
                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):

           Add.

           1)   14 . 15
                + 1. 32

           Subtract.

           2)   52.08
                - 0.17

VI.   Methods of evaluation:
        a)   Student may 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:

                Subtract.

                1) 16.3 - 1.4

                Add.

                2) 13.45 + 0.692

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 (latest edition)

VIII.   Other supplies required of students: None