Course Outline

Math 952D – Prealgebra (CAI)

I. Course Identification

A. Mathematics: Math 952D – Prealgebra (Decimal and Percent)

B. 1 – One unit: One-hour hour lecture

C. Catalog Course Description:

Math 952D is a self-paced, computer-assisted program of decimals and percents. Students will meet with faculty to discuss their progress and will work independently through a series of computer activities. In addition, supplementary materials may be used for further explanation and/or to help the student complete assignments at the level of the computer generated assignments that are typical for this type of course. The skills to be learned include addition, subtraction, multiplication and division of decimals; conversion of decimals to percent and the ability to solve linear equations in 1 variable containing decimals.

D. Schedule Course Description:

Improve your Prealgebra skills through a self-paced series of individualized computer-assisted assignments. This program is based on computerized assessment and prescription for Prealgebra skill improvement using decimals and percents.

II. Required and/or Recommended Background:

Corequisite: None
Perequisite: Successful completion of Math 952C or placement through assessment test.

III. Expected Outcome for Students:

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

a) Read decimal notation and round-off decimals
b) Convert between fractions, decimals and/or percentages as needed
c) Add, subtract, multiply, divide decimals
d) Raise decimals to a power
e) Extract perfect square roots
f) Understand the meaning of percent
g) Solve word problems containing decimals and /or percents by creating a balanced linear equation in 1 variable

IV. Course Content:

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

A: Decimals

1) Reading, writing and rounding-off decimals.
2) Addition, subtraction, multiplication & division of decimals
3) Changing fractions to decimals and back
4) Linear equations in 1 variable containing decimals

B: Percent
1) Understanding the concept of percent
2) Changing percent to decimal or fraction
3) Solving application problems containing percentages by setting-up linear equations in 1 variable

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 Prealgebra skills using the properties of equality. 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 assignments(s)

Divide:

1) $6.6\overline{)0.198}$

Solve:

2) 37 is 4% of what number?

VI. Methods of evaluation:

a) Student's progress repots from the computer is evaluated regularly (usually weekly).
b) Student may be asked to submit, to the instructor of record, completed worksheets or other written assignments.
c) 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.
d) Sample test questions

Follow order of operations:

1) $2.5 + 10(4.3)^2$

Solve: Show the equation

2) A basketball player made 63 out of 75 free throws. What percent is this?

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.

For example: Invest software, and McKeague, Prealgebra, ITP

VIII. Other supplies required of students: None