

Course Outline

Math 952C – Prealgebra (CAI)

I. Course Identification

A. Mathematics: Math 952C – Prealgebra (Linear Equations in 1 Variable)

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

C. Catalog Course Description:

Math 952C is a self-paced, computer-assisted program of linear equations in 1 variable. Students will meet with faculty to discuss their progress and will work independently through a series of computer activities. In addition, supplemental 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 the use of the properties of equality.

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 the properties of equality.

II. Required and/or Recommended Background:

Corequisite: None

Perequisite: Successful completion of Math 952B or placement through assessment test.

III. Expected Outcome for Students:

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

- a) Use correct algebraic vocabulary
- b) Use the properties of equality
- c) Find the replacement value for x in a linear equation in 1 variable
- d) Set up correct equations from word problems
- e) Use substitution property to check answers
- f) Translate from English to algebra and from algebra to English

IV. Course Content:

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

- 1) The Addition Property of Equality
- 2) The Multiplication Property of Equality
- 3) The Distributive Property
- 4) Combine Like Terms
- 5) Substitution Property
- 6) Ability to set-up and solve a balanced linear equation from a word problem
- 7) Compare/contrast: terms and factors

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)

Solve the following equations:

1) $-2x - 5 = -7$

2) $\frac{3}{x} - \frac{4}{5} = -\frac{1}{5}$

I. Methods of evaluation:

- a) Student's progress reports 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:

Solve the following equations:

1) $5(2x - 4) + 8 = 38$

2) $\frac{4}{x} + 3 = \frac{1}{x}$

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