

### Course Outline

**COURSE:** GUID 563A      **DIVISION:** 30      **ALSO LISTED AS:**

**TERM EFFECTIVE:** Fall 2010      **Inactive Course**

**SHORT TITLE:** DIR STUDY/LAB ALG

**LONG TITLE:** Directed Study Lab in Algebra

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
1	18	Lecture:	0	0
		Lab:	4	72
		Other:	0	0
		Total:	4	72

#### **COURSE DESCRIPTION:**

This course is designed for students who have demonstrated difficulty mastering elementary algebra and who are eligible to receive Learning Disability Services. Course content parallels Mathematics 205A. Material is presented in a concrete, multi-sensory manner, and the lab allows opportunity for immediate practice, questions, repetition, and review. This is a pass/no pass course. **COREQUISITE:** Concurrent enrollment in MATH 205A is required. **ADVISORY:** Completion of GUID 557 or demonstrated deficit in mathematics. Recommended for students with verified learning disability.

**PREREQUISITES:**

**COREQUISITES:**

MATH 205A

**CREDIT STATUS:** C - Credit - Degree Non Applicable

**GRADING MODES**

P - Pass/No Pass

**REPEATABILITY:** R - Course may be repeated

Maximum of 99 times, 100 credit hours

**SCHEDULE TYPES:**

04 - Laboratory/Studio/Activity

**STUDENT LEARNING OUTCOMES:**

1. Students will demonstrate ability to work with fractions, variables, the order of operations, and rules for signed numbers.

ILO: 2,1,6

Measure: In class skill demonstration

2. Students will apply addition & multiplication properties in solving linear equations.

ILO: 2,1,6

Measure: In class skill demonstration

3. Students will demonstrate ability to solve word problems including use of formulas, ratios and proportions.

ILO: 2,1,6

Measure: In class skill demonstration

4. Students will apply acquired skills in solving linear inequalities.

ILO: 2,1,6

Measure: In class skill demonstration

5. Students will be able to identify and use the formula for slope and the three forms of the equation of the line in graphing and solving linear equations.

ILO: 2,1,6

Measure: In class skill demonstration

6. Students will demonstrate ability to graph linear inequalities in two variables.

ILO: 2,1,6

Measure: In class skill demonstration

7. Students will employ the graphing, substitution and elimination methods in solving systems of linear equations.

ILO: 2,1,6

Measure: In class skill demonstration

8. Students will demonstrate ability to solve systems of linear inequalities.

ILO: 2,1,6

Measure: In class skill demonstration

9. Students will demonstrate ability to perform operations with exponents.

ILO: 2,1,6

## **CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS**

Inactive Course: 05/12/2008

8 Hours

Complete problems on addition, multiplication, and division of fractions. Students will be able to demonstrate ability to work with fractions correctly.

6 Hours

Order of operations; variables. Students will apply order of operations correctly.

Students will be able to identify variables and apply the concept in equations.

6 Hours

Operations with signed numbers. Complete problems on addition, subtraction, and division of signed numbers. Students will be able to calculate sums, differences, products, and quotients of real numbers.

4 Hours

Properties of Real Numbers; Simplifying Algebraic Expressions. Students will be able to complete problems on simplifying algebraic expressions, formulate and analyze properties of real numbers and simplify algebraic expressions.

4 Hours

Addition and Multiplication Properties of Equality. Students will be able to solve

assigned equations using multiplication and addition properties. Students will apply the concepts to solutions of linear equations.

4 Hours

Applications of Linear Equations. Students will complete word problems using linear equations. Students will be able to formulate, analyze, and solve word problems.

4 Hours

Formulas and Applications from Geometry. Students will be able to solve assigned formulas for the specific variables; complete applied problems from Geometry; evaluate formula expressions and use formulas in solving the application problems from Geometry and solve a formula for specified variables.

4 Hours

Ratios and Proportions and solving linear inequalities. Students will be able to complete problems utilizing ratios and proportions and solve assigned problems on linear inequalities. Students will use properties of proportions to solve proportions and solve applied problems using proportions.

4 Hours

Reading Graphs and solving linear equations in two variables. Students will be able to complete problems on analyzing and solving linear equations in two variables. Students will be able to analyze and interpret the graphs and identify and sketch the graph of the linear equation in two variables. Students will graph intervals on the number line and solve linear inequalities..

4 Hours

Slope of a line and equations of a line. Students will be able to evaluate the slope of the line and find an equation of the line that fits a data set.

4 Hours

Linear Inequalities in Two Variables. Students will be able to identify and graph linear inequalities in two variables.

4 Hours

Solving Systems of Linear Equations by Graphing; Solving Systems of Linear Equations by Substitution. Students will be able to solve systems of linear equations employing graphing and substitution methods.

4 Hours

Solving Systems of Linear Equations by Elimination; Applications of Linear Systems.

Students will be able to solve systems of linear equations by elimination and solve problems about unknown numbers using the system of equations.

4 Hours

Applications of Linear Systems. Students will be able to formulate, analyze, and solve word problems about quantities and their costs; uniform motion problems, and mixture problems using the system of equations.

3 Hours

Solving Systems of Linear Inequalities and the Concept of Exponent. Students will be able to solve systems of linear inequalities by graphing. Students will be able to identify bases and exponents.

3 Hours

The Rules for Exponents. Students will be able to evaluate exponential expressions using Product and Power Rules for exponents.

2 Hours

Final Exam. Students will review Chapters 1-5.1 for final exam.

\*\* This course may be repeated if students do not complete Math 205A with grades of C or better.

#### **METHODS OF INSTRUCTION:**

Lecture, problem demonstrations, questions and answers, group problem solving, self-graded practice tests, and interactive computer lab assignments.

#### **METHODS OF EVALUATION:**

The types of writing assignments required:

None

The problem-solving assignments required:

Other: In class problem solving.

The types of skill demonstrations required:

None

The types of objective examinations used in the course:

None

Other category:

Participation in class discussions and question and answer sessions and completion of practice tests.

The basis for assigning students grades in the course:

Writing assignments: 0% - 0%

Problem-solving demonstrations: 49% - 51%

Skill demonstrations: 0% - 0%

Objective examinations: 0% - 0%

Other methods of evaluation: 49% - 51%

### **REPRESENTATIVE TEXTBOOKS:**

Liel, Hornsby, McGinis, Beginning Algebra, Pearson, Addison-Wesley, 2007, Tenth Edition, or other appropriate college level text.

Reading level of text: Math Dept. Text grade

### **ARTICULATION and CERTIFICATE INFORMATION**

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Not Transferable

UC TRANSFER:

Not Transferable

### **SUPPLEMENTAL DATA:**

Basic Skills: B

Classification: B

Noncredit Category: Y

Cooperative Education:

Program Status: 2 Stand-alone

Special Class Status: S

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: E

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000232154

Sports/Physical Education Course: N

Taxonomy of Program: 170200