COURSE OUTLINE

Course No: Math 108
Course Name: Introduction to Algebra with Applications for a Variety of Technologies
Credit Hours: 4 Class Hours:4
Date: Summer 2003 Prepared By: Roxane Barrows
To Be Updated: Approved By:

Prerequisites: "C-" or better in PreAlgebra OR a minimum numerical Asset score of 45.

Students entering Introduction to Algebra are expected to have a thorough understanding of all operations in arithmetic including (but not limited to): fractions, decimals, percents, signed numbers, exponents, and order of operations.

Course Description: Introduction to Algebra is a three credit hour course meeting four times a week including one lab hour. The topics covered are: measurement systems, measurement quality, unit analysis, algebraic operations, solution of simple equations and formulas, ratio and proportion, the Cartesian coordinate system, graphing linear equations, writing equations of straight lines, functions, interpolation, and the mathematical construction and use of tables, charts, and graphs. Applications from a variety of technologies will be emphasized.

Course Objectives: Upon completion of Math 108 the student will:

1. compare and contrast the Customary and Metric measurement systems.
2. use unit analysis to convert or reduce units.
3. use measurement quality theory to correctly round the results of calculations involving measurements.
4. define and discuss algebraic terminology.
5. use basic algebraic operations to simplify algebraic expressions.
6. solve simple equations and formulas.
7. translate and solve word problems.
8. use ratio and proportion to solve problems.
9. graph linear equations on the Cartesian Coordinate System.
10. interpret the graph of a function.
11. write the equations of straight lines
12. discuss and evaluate functions.
13. use interpolation to solve problems.
14. draw and interpret tables and graphs.

Text: Introduction to Algebra with Applications for a Variety of Technologies Third Edition, By J.B. Hart and R.R. Barrows, Kendall Hunt Publishing,2001.
Required Materials: A scientific Calculator.

Graph paper

Safety Practices:

1. Please take note of the exit route to take in case of fire or other emergency. If the alarm sounds, quickly collect all valuables and proceed as a group along the emergency exit route. Listen to your instructors directions. Once outside the building report to your instructor.

2. In the event of a medical emergency call the HC Police (ext. 2500).

Topical Outline:

Topic 1: Measurement Systems. This chapter includes both the metric and customary measurement systems, unit analysis, and measurement quality. Applications from a variety of technologies are emphasized.

Topic 2: Introduction to Algebra. This chapter introduces the definitions, basic rules, and operations that can be performed on algebraic expressions.

Topic 3: Simple Equations. In this chapter we learn how to solve simple equations and formulas, how to translate and solve word problems, and how to use ratio and proportion to solve problems. Applications from a variety of technologies are emphasized.

Topic 4: Tables, Graphs, and Charts. In this chapter we learn about the Cartesian Coordinate System, how to graph on that system, how to interpret graphs, how to write the equations of straight lines, how to recognize and use functions, how to interpolate, and how to draw and use non-Cartesian graphs and tables. Applications from a variety of technologies are emphasized.

HOCKING COLLEGE
EVALUATION OF THE STUDENT

Course: Math 108
Instructor: Roxane Barrows
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The objective of the instructor is to assist the student in mastering the objectives of the course. The purpose of the evaluation is to give a general indication of the extent to which the student has learned the material.

1) EXAMINATIONS

a) There will be a chapter test after each chapter that we cover. Each chapter test will be worth 100 points. Chapter tests make up 50% of your grade. These chapter tests may contain questions out of previous chapters to encourage students to retain previous material.

b) There will be a comprehensive final exam worth 25% of your grade. The final exam is two hours long.

c) Each test must be taken at a proctored sight. This can be the Nelsonville campus, Perry campus, or any other mutually agreed upon sight.

d) The last day to take a test, to earn a PR or a letter grade, is Thursday of the 11th week of the quarter.

2) PROJECTS / HOMEWORK

a) Homework will be assigned for every section. It is up to the student to make sure that it is done in a neat, organized, legible fashion showing all work.

b) There will be seven graded assignments. The graded assignments will be worth 25% of your grade.

c) The last day to turn in an assignment, to earn a PR or a letter grade, is Thursday of the 11th week of the quarter.

3) ATTENDANCE

You must attend 5 times to take the chapter tests and final exam at the agreed upon sight. You may receive a grade of "pr" if you successfully complete 2 chapter tests. A grade of "pr" will allow you to finish your class the next quarter. You will have 8 weeks into the following quarter to finish your class or the grade will become an "f". The last day to take a test, to earn a PR or a letter grade, is Thursday of the 11th week of the quarter.

4) CLASS PARTICIPATION

Your participation in the class is very important. It is important that you ask questions and respond to my questions.

5) EXTRA PROJECTS

There will be no extra projects in this course.

6) GRADING SCALE

A : 92-100	C+: 78-79	F : 0-59
A-: 90-91	C : 72-77	
B+: 88-89	C-: 70-71	
B : 82-87	D+: 68-69	
B-: 80-81	D : 60-67	

7) POLICY REGARDING HONESTY

Every student is presumed to be honest. If however a situation arises in which a student is observed being dishonest he/she will receive a grade of "0" for that work. Two such incidents will be considered just cause to fail the student for the entire course. Instances of dishonesty will also be reported to Campus Judiciary.

8) FINAL GRADE CALCULATION

Step #1: Average your test scores.
Step #2: Double your test average.
Step #3: Add your graded assignments.
Step #4: Final exam score.
Step #5: Add step 2,3 and 4 and divide by 4.

A student must obtain at least a grade of "C-" in order to move on to the next course in the sequence.

9) STUDENT GRIEVANCE DUE PROCESS PROCEDURES

Due process procedures for the college are located in the Student Code Of Conduct, Policy and Procedures Manual, 1993-94, published by the Student Affairs Office, Oakley 210.