MATH 101
COLLEGE ALGEBRA

Nicholls State University, Summer 2003

Instructor: Brian Heck. My office is 117-A Peltier Hall and my office phone number is 448-4383 (4383 on campus). I will be available for office hours from 10:30 am until 12:00 every day (and by appointment). Please drop by if you have any questions. Also, my email is math-bh@nicholls.edu.

If I am not in my office during my scheduled office hours, then I am wandering the halls of Peltier. Please hang around, or come and find me. If I will be unable to hold office hours, I will put a note on my door.

Prerequisite: A grade of a 'C' or better in Math 003 or advance placement.

Text: *College Algebra* (2^{nd} ed.) by Blitzer.

Course Description (catalog): Linear equations and inequalities, linear applications, systems of linear equations, quadratic equations and inequalities, absolute value equations and inequalities, radical equations, functions and graphs, polynomial and exponential and logarithmic functions.

Course Description (instructor): This course could really be titled *Introduction to Functions*. We will spend the vast majority of our time studying functions in one way or another. We begin with preliminary topics needed for the study of functions, and then use these tools throughout the semester in studying functions in general as well as specific functions of interest. We will often focus our attention on word problems, since in the real world, everything is a word problem.

Goals of the course: A student who successfully completes this course will be able to:

- Solve equations of many types, including linear, quadratic, absolute value, radical, exponential and logarithmic using a variety of methods.
- Solve systems of linear equations.
- Solve inequalities, including absolute value inequalities, and express answers in both interval and graphing notations.
- Determine whether a relation is a function or not.
- Evaluate a function and find its domain.

- Add, subtract, multiply, divide, and compose functions.
- Graph polynomial functions, including linear, quadratic as well as higher degree polynomials.
- Interpret the data given in the graph of a function.
- Graph circles.
- Evaluate logarithmic expressions.
- Convert a word problem into a mathematical problem and solve it.
- Explain the reasoning behind various methods of problem solving.

Grading Policy: Quizzes 30%
Exams 70%

Quizzes: Homework is a very necessary part of this course. You cannot learn something if you do not practice it. This is especially true of mathematics. That being said, I will not collect homework. Instead, I will encourage you to stay up to date with assignments by having pop quizzes whenever I feel like it. I will drop your lowest three quiz grades, so there will be no make-ups for quizzes.

Exams: We will have three equally weighted exams. If you miss an exam without letting me know in advance, you will only be able to take a make up if you have a valid excuse.

Class Schedule: I will assume knowledge of Chapter P. You should look this chapter over, and if you get questions, please come see me. Below is a list of the sections we will attempt to cover this semester. If we fall behind , some sections may be skipped. The dates of the exams are tentative. If they need to change, you will be notified in class.

Chapter 1: Sections 1-6
Chapter 5: Section 1
****Test #1, Thursday, June 19****

Chapter 2: Sections 1-6
****Test #2, Wednesday, July 2****

Chapter 3: Sections 1-4
Chapter 4: Sections 1-5
****Test #3, Monday, July 21, or Tuesday, July 22****