

MATH 101

COLLEGE ALGEBRA

Nicholls State University, Spring 2004

Instructor: Brian Heck. My office is 117-A Peltier Hall and my office phone number is 448-4383. My office hours are as follows: Monday, Wednesday 4-6 p.m., and Tuesday, Thursday 9-11:30 a.m. and 1:30-3 p.m. Please come by if you have any questions. Also, my email is Brian.Heck@nicholls.edu.

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

Required Materials: The required text is *A Graphical Approach to College Algebra* (3rd ed.) by Hornsby, Lial, and Rockswold and you will also need a graphing calculator. I will use a TI-83 Plus exclusively in class. If you would like me to be able to help you with calculator issues, I suggest you get the same model.

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 completes this course will be able to:

- Solve equations of many types using a variety of methods including, but not limited to, the graphing calculator.
- Solve inequalities and express answers in numerous 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 analytically and using the graphing calculator.
- Interpret the data given in the graph of a function.
- 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: We will have four tests and a comprehensive final exam. The tests are each worth 100 points, and the final is worth 200 points. Your semester grade will then be figured by dividing your total points earned by 600 and assigning a letter based on the usual 10-point scale (A: 90-100%, B: 80-89%, C: 70-79%, ...).

Class Schedule: Below is a list of the sections we will 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 7: Section 1
****Test #1, Tuesday, February 10****

Chapter 2: Sections 1, 4-6
****Test #2, Thursday, March 4****

Chapter 3: Sections 2-4
****Test #3, Thursday, March 25****

Chapter 5: Sections 1-6
****Test #4, Tuesday, April 27****

****Final Exam, Tuesday, May 4...1:00-3:00 p.m.****

Attendance/Expectations: I will not include attendance as part of your course grade. I am not your mother or your parole officer, and this is not high school. I do, however, expect you to attend class everyday. You are responsible for all material covered in class. It is assumed that you are attending this university because you have a desire for higher learning. It is therefore expected that you will pay attention, be respectful of your instructor and fellow students, and follow the Code of Student Conduct. Instances of academic dishonesty will be dealt with severely. If you are caught cheating, you will fail this course. Similarly, if you are a disruptive presence in the classroom, you will be dropped from the class.

Disability: If you have a documented disability that requires assistance, you will need to register with the Office of Disability Services for coordination of your academic accommodations. The Office of Disability Services is located in Peltier Hall, Room 100-A. The phone number is (985) 448-4430 (TDD 449-7002).