MATH 130 – SPRING 2006
COLLEGE ALGEBRA

Instructor:	Alina Birca
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Office:	Building 40 – Room 145 Office hours: MW 9:00 – 9:30 am; TTh 3:00 – 3:30 pm & 6:00 – 7:00 pm
Text:	*College Algebra (*9th edition) by Lial/Hornsby, Schneider
Student Access Kit	**Recommended.** It is available bundled with your textbook or as a standalone item. See more details on the last page of the syllabus.
Section # 086196	MW 9:30 am – 11:00 am 40 – 129
Section # 086202	MW 11:00 am – 12:30 pm 40 – 129

Course Objectives
This is a function oriented course including the concept of function and function notation. The course includes an in depth investigation of polynomial, rational, root, exponential and logarithmic functions, including their equations, graphs, and behavior. Tools from arithmetic, geometry and algebra are used to develop definitions, standard notations and theorems involving these functions and their application in the physical world. Other topics include sequences, series, the binomial theorem, and mathematical induction.
Some of the course objectives are:

- the ability to represent a function graphically, numerically, and analytically.
- the ability to recognize, graph, and solve equations involving polynomial, rational, exponential, root, and logarithmic functions.
- the ability to recognize and apply the appropriate function to solve problems involving tables, graphs, equations or words.
- understand and use the binomial theorem and the principal of mathematical induction.
- the ability to apply studied principles and skills to new situations in addition to situations that mirror those on the homework and those shown in class.

Methods of Instruction
This course will combine lecture, teamwork, and class discussion. Students will be required to do homework, group problems, quizzes and examinations.

Attendance and Participation
Understanding math requires more than just reading a textbook. Listening and participating in the class activities are as important as solving problems. College policy requires that you attend every class meeting. Any absence will adversely affect your class participation grade plus you will miss the material from that day and that day's quiz. Do not be late to class. Excessive tardiness will also affect your participation grade. You may also miss the quiz if you are late. NOTE: You the student are responsible for dropping the course should you decide not to continue in it. If you stop attending and doing the work and you fail to drop, you will receive a failing grade in this course. **You may be dropped from this class if you miss class during the first 2 weeks of instruction**. Your seat will be given to a student who has been attending each day.

Prerequisites
There is a prerequisite for this course (Math 71 –Intermediate algebra), and I expect that you demonstrate college arithmetic skills as well as elementary and intermediate algebraic skills, including solving first and second degree equations and inequalities, factoring polynomials, working with fractions and rational expressions, graphing lines and parabolas.

Study time & Extra help
You are expected to study two hours outside class for every hour in class. If you have trouble completing assignments or understanding the mathematics, get help as soon as you need it. My office hours are listed above. Free tutorial services are available in MARC (40 -).

Late Work
Be prepared with all assignments on the day they are due. As a rule, I do not accept late written work nor are there any make up tests or quizzes.

Academic Honesty
Plagiarism or cheating will not be tolerated. There will be a zero on the assignment and risk failing the course.

Calculators
A graphing calculator is NOT REQUIRED for homework problems! All of the homework problems I will assign this semester will be done using paper, pencil, ruler and a scientific calculator. A graphing calculator may be required for some of the group problems (activity labs). No graphing calculator is allowed during the tests.

If you have a phone or pager, please turn it to vibrate and sit close to the door in case you need to use it in an emergency. Thank you.

Organization, Grading and Requirements

You will need a 3-hole binder with 3 separators, labeled as follows:
LECTURES **HOMEWORK** **TESTS**

- **LECTURES** – Pay attention in class to what I say and do, and make careful notes. In particular, note the problems I work on the board, and copy the complete solutions as well as the theory presented in each section. Work as neatly as you can. Write your symbols clearly, and make sure the problems are clearly separated from each other. Do not hesitate to ask questions in class. It is not a sign of weakness, but of strength. There are always other students with the same question who are too shy to ask.
- **HOMEWORK** – Before you start on homework assignments, rework the problems I worked in class as well as all examples from the textbook. This will reinforce what you have learned. Make sure you check your previous work against the solution sections posted on my website.
- Keep all homework assignments and tests that are returned to you in your binder. Use them when you study for future tests and for the final exam.

Assignments in the course are divided into five areas and are worth a total of 1000 points. Those earning 900 points or more will be awarded an A, 800 to 899 points a B, 700 to 799 points a C, 600 to 699 points a D and less than 599 points an F.

Class Participation and Mini-quizzes 80 points
Your class participation grade includes completion of class exercises and contribution to solving exercises as well as attendance and audience behavior. Everyone starts with 30 points but may lose some of the points as the semester goes on. Students who are absent will be automatically forfeit a percentage of their class participation grade equal to the percentage of classes absent. There will also be 25 mini-quizzes (5 minutes), each worth 2 points.

Homework 150 points
Homework will be assigned and collected ten times (see due dates on the Tentative Class Schedule). Homework is due at the beginning of the class. Each homework is worth 15 points. Read carefully all the directions from the homework handout. Late homework will not be accepted for any reason with the following exception: you are allowed ONE grace period until the next class period for ONE assignment. You get only one grace period – use it wisely! You are encouraged to discuss assignments with your classmates; however, you are required to write up your work independently. Copied homework will not be tolerated and identical, or nearly identical, assignments will *share* a single homework score.

Activity Labs 100 points
There will be four sets of group problems (activity labs). Each group must have at least 2 people and may not be more than 3 people. (Note: Individual efforts will not be accepted). Each activity lab is worth 25 points. A graphing calculator may be required for some of the problems (we will discuss all the details in class).

Tests 420 points
Three tests will be given over the major areas addressed in the course. Each test is worth 140 points. For a test to be complete there needs to be a detailed solution to the problem. Do not just write down an answer. **No proof, no credit given!**

Comprehensive final 250 points
The final is a 2 ½ hour exam and it is held on **Monday, May 15** from **7:30 – 10:00 am** (Section # 086196) and on **Wednesday, May 17 from 10:30 am – 1:00 pm** (Section # 086202).The final is a cumulative exam. You may use the final exam percent score to replace your lowest test score. You must take the final to pass this class.