

MAT 111 - College Algebra

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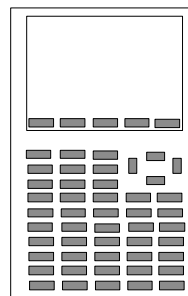
our models. We begin this process by learning about the simplest relationships, or functions, and their graphs. Once you understand the functions through their graphs you can then make use of them in real life problems.

Course Content:

Required Text: Algebra & Trigonometry, by Sullivan and Sullivan, Prentice-Hall, Third Edition, 2003.

Graphing Calculator: You will need a TI-83 graphing calculator.

In this course we will review basic algebraic concepts with an emphasis on applications. We will cover linear, quadratic, exponential, logarithmic and polynomial functions. We will cover chapters 1-4, 6 and sections 5.3, 7.1 and 12.8.



Course Philosophy:

Many of the students at UNCW need to review their algebra skills. These skills, which they have already seen in high school, are important in many areas outside of mathematics. However, most students seem to have some difficulty in learning the material. They have not seen any math in a number of years. Others think that one has to be some sort of whiz to learn math and have never really enjoyed their mathematics courses. Still, other students think that this course will be a breeze and they do not have to study. Before they know it, they have been left behind in the dust because they had developed poor study skills at the beginning of the course.

In this modern era of technological advances the way we carry out computations and solve problems has been dramatically changing. Personal computers and calculators have penetrated many areas of our society. Graphing calculators, which can be used to explore interesting problems and take the drudgery out of creating graphs, are required in some public school classes. As a result, the emphasis in mathematics education is changing from pure drill and memorization to application and conceptualization. By the end of this class you will be expected to be able to manipulate algebraic expressions and understand graphs using both a pencil and a graphing tool. You will also learn how one begins to determine standard relationships between sets of data.

One of the objectives in this course is to use technology to study simple models and learn some mathematics along the way. As you will see, mathematics is about relationships. We can transform simple data into graphs; use these graphs to develop sensible models; and then, explore the outcomes predicted by

Course Requirements:

Homework: Homework assignments will be collected on a regular basis and you will be told when the work is due. There will be a penalty of 10% for each class that it is late. As doing homework is very important for learning material in this course, it will count as 25% of your grade.

Attendance: YOU ARE EXPECTED TO ATTEND ALL OF THE CLASSES! After three excused absences there will be a penalty of 2% for each absence from your total grade.

Exams and Grades : There will be four fifty minute exams and a final for this course. The exams will cover the basic material in the text. There will be no makeup exams without prior permission. The final is a **common final**, which all MAT 111 students are required to take at the given time. The tentative dates for the exams are below.

Exam I	Ch. 1	Sep 13
Exam II	Ch. 2	Sep 27
Exam III	Ch. 3, 4, 5.3	Oct 29
Exam IV	Ch. 6	Nov 22
Final	Whole Course	Dec 7, 7 PM

Your final grade will be based on the following information

Exams	50%
Homework	25%
Final	25%

90-100	A
80-89.5	B
70-79.5	C
60-69.5	D

In some cases borderline grades may be modified by a plus, or minus, if the instructor determines that such grades are earned.

Homework Assignments:

You should do as many problems as you can to become proficient in this class. However, you are required to turn in all of the problems below for grading according to the schedule. All work is expected to be neat, in order and with all work provided. *Remaining homework assignments are provided at the course website.*

#	Sec	Problems	Due
1	1.1	5 6 16 17 22 30 36 46 51	8/25
	1.2	1 4 7 8 14 20 24 28 32 38	
2	1.3	1 2 13 26 36 38 42 48 61 64 67 70 81 84	8/30
	1.4	12 21 32 35 39 41	
3	1.5	3 6 17 31 34 52 55 63 66 71	9/3
	1.6	2 6 14 15 23 24 26 44 45 60 82 83 86	
4	1.7	5 6 14 16 28 33 47 50 54 61 67 78 91	9/10
	1.8	4 8 11 17 18 20 21	
5	2.1	6 10 22 26 33 38 41 46 48 49 50 62 85	9/20
	2.2	6 11 26 28	
6	2.3	1-8 14 17 20 26 45	9/24
	2.4	1 2 8 14 17 22 25 29 35 36	

THIS SYLLABUS IS SUBJECT TO CHANGE!

Academic Honor Code: "The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore the institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, each individual is principally responsible for his or her own honesty." Student Handbook.

Disabilities: If you feel that you should qualify for disability testing or accommodations during this course, contact the Office of Disability Services in Westside Hall or call ext. 3746.

Student Tips

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- I. Prior to the beginning of the semester:
 - Begin each course with a positive attitude and open mind.
 - Determine why you are taking this course; graduation requirement, prerequisite for another course, your job demands this course, to improve your GPA. These are all-important reasons—remind yourself of this throughout the course.
 - Plan your school, work, and recreation schedule to allow plenty of long blocks of time to study.
 - Plan or designate a study area that is quiet and where you won't be interrupted.
 - Purchase your textbook, calculator and any supplies before the semester begins or on the first day of class.
- II. During the semester:
 - Make an exaggerated effort the first couple of weeks—get off to a fast start.
 - Attend all classes—your teacher needs you there in order to "teach you."
 - Work all assignments as they are assigned. Mathematics courses are usually building courses, meaning each section builds on the concept that you have worked and understood all of the material in the previous section(s).
 - Complete only one assignment at a time (in a block of time). Allow time for each assignment to "soak in" before attempting the next assignment.
 - Ask questions. Prepare a list of questions to ask in class, if the teacher allows, or in the teacher's office or in a math help center.
 - Get help outside of class. You may want to go your teacher's office or you may prefer to go to a help center.
 - Form study groups with 3 or 4 other students from your class.
- III. Prior to a test:
 - Plan ahead—set aside plenty of study time, beginning several days before the test date.
 - Go through the material presented/homework assignments. Select 2 or 3 problems of each type presented and write yourself a "practice test."
 - For any areas that you feel are weak, select additional practice exercises and/or get help on these areas.
 - 1-2 hours prior to taking the test, work a few problems—get your mind thinking mathematics.
- IV. After a test:
 - Go over your test.
 - Study any questions which you missed—learn how to answer (work) these questions immediately.
 - Keep your old tests in a safe place, as you will want to study them again prior to the final exam.
- V. How to approach homework assignments:
 - Read back through your class notes, including reworking all examples, before you attempt your homework assignments and read through the reading material in the text, working the examples in the text.
 - As you are working through your homework, check your answers. Remember that you can check your answers to the odd problems from the back of the text.
 - If you miss a problem, try reworking it rather than trying to find your mistake. Then compare your work. If you still miss it, look for a similar example in the reading material in that section. Using your own pencil and paper, work through that example and compare to the example in the text.
 - If there is a math help center available and you are struggling, work your homework while sitting in the math help center where you are able to get immediate help.

If you need extra help, plan to visit the Math Lab in Bear Hall. Further course information can be found at the course website:

<http://people.uncw.edu/hermanr/mat111>