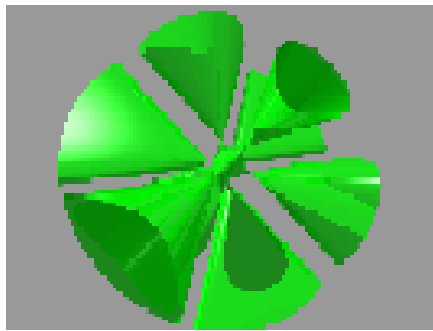Math 100C
Spring/2006

Senior Lecturer: Mrs. Susan Riner
Office: 116C Seney Hall
Phone: 784.8316

Weirdsurface

Thoughts on mathematics……….

"Can you do addition?" the White Queen asked. "What's one and one and one and one and one and one and one and one and one and one?" "I don't know," said Alice. "I lost count." Lewis Carroll

The study of mathematics is apt to commence in disappointment.... We are told that by its aid the stars are weighed and the billions of molecules in a drop of water are counted. Yet, like the ghost of Hamlet's father, this greatest science eludes the efforts of our mental weapons to grasp it. Alfred North Whitehead

God made the integers, all else is the work of man. Leopold Kronecker

The traditional mathematics professor of the popular legend is absentminded. He usually appears in public with a lost umbrella in each hand. He prefers to face the blackboard and to turn his back to the class. He writes a, he says b, he means c; but it should be d. George Polyá

It is easier to square the circle than to get round a mathematician. Augustus De Morgan

The mathematical sciences particularly exhibit order, symmetry, and limitation; and these are the greatest forms of the beautiful. Aristotle

Life is good for only two things, discovering mathematics and teaching mathematics. Siméon Poisson   (My personal favorite)

Text: <u>Algebra and Trigonometry</u> by Keedy/Bittinger, 6th edition

Purpose: This course is designed to prepare students for Math 120 (Geometry), Math 107 (Statistics), and Math 110A (Calculus). If credit is received for Math 110A, the 2-hour credit for Math 100C will be deleted. **Only those students making an A or high B in Math 100C should take Math 110A.** Math 100C will provide each student with an opportunity to increase his or her proficiency in and understanding of the basic concepts of Algebra, graphing, combinatorics, probability, and basic trigonometry. You may not drop Math 100C after January 24th.

Goals and Objectives: Students should - without the aid of a calculator – demonstrate the following: proficiency in algebraic and trigonometric calculations, rules of probability, and methods of counting; retention of algebraic formulas and trigonometric identities; understanding of basic concepts, rules, and theorems in algebra, trigonometry, probability, and combinatorics.

Attendance: Students are expected to be on time and attend all classes and are responsible for all material covered in class as well as any changes made in the attached schedule regarding topics, homework, quizzes, and test dates. Attendance and consistent preparation for class will determine the success or failure the student realizes in this course.

Homework: Homework problems will not be collected but are assigned to benefit you. You will need to study 2-3 hours outside of class for every hour spent in class.

Tutoring: Student tutors are scheduled for a limited amount of time per week in the evenings. You may want to consult tutors if you are having trouble with homework problems. Tutoring schedules are posted in the Seney Hall classrooms and mathematics offices.

Labs: There will be four Math 100C labs. During these labs, students will work in groups on problems related to the material currently being covered in class. Students may use textbooks, calculators, and class notes. Each group will turn in one lab and receive one grade. Attendance is mandatory. Since lab assignments are to be done as a group rather than individually, **there is no provision for making up a missed lab.**

Honor Code: **The Honor Code of Oxford College applies to all work submitted for credit. You will pledge with your signature that the work you submit for credit is yours and yours alone.**

Assessment Procedures: Tests will be given on Tuesdays during the lab period. Quizzes will be given during class time. Labs not used for tests will be used for graded group assignments. Each test should be passed with 70 points or more with provisions made for one re-test per section. 70 will be the highest grade given on a re-test. If any student needs special accommodations, the appropriate paperwork should be turned in to the professor and arrangements made prior to the first graded assignment. There is no provision for making up tests. **If a student has a note from a doctor or a documented family emergency**, that student may take the re-test. The lowest quiz grades will be dropped. Therefore, **there is no provision for making up a quiz**.

A STUDENT MUST MAKE 70% OR ABOVE ON THE FINAL EXAM IN ORDER TO PASS MATH 100C.

Points will be distributed as follows:

4 Tests	100 points each	400 points
4 Labs	25 points each	100 points
Quizzes	100 points total	100 points
Final Exam	200 points total	200 points
Total		800 points

Grades will be assigned as follows:

A (90 - 100): 720-800 points
B (80 - 89):   640-719 points
C (74 - 79):   592-639 points
D (70 - 73):   560-591 points
F: Below 560 points

Math 100 - Topics

Th-Tu	1/19,24	1.2 - Exponential Notation
		1.3, 1.4 - Algebraic Operations
		1.5 - Factoring
Th-Tu	1/26,31	1.6 - Rational Expressions
		1.7 - Radical Notation
Wed	2/1	Lab I
Th-Tu	2/2,7	1.8 - Rational Exponents
		Review
Wed	2/8	**TEST I**
Th-Tu	2/9,14	2.1 - Solving Equations
		2.2 - Rational Equations
		2.5 - Quadratic Equations
Th-Tu	2/16,21	2.7 - Radical Equations
		2.8 - Equations Reducible to Quadratic
		3.1 - Graphs
Th-Tu	2/23,28	3.2 - Distance, Circles
		3.3 - Functions
		3.4 - Lines
Wed	3/1	Lab II
Th-Tu	3/2,7	3.7 - Combinations of Functions
		Review
Wed	3/8	**TEST II**
Th	3/9	3.8 – Transformations
		4.1 - Quadratic Functions
Tu	3/21	4.2 - Graphs, Inequalities
		4.3 - Absolute value
		5.2 – Exponential Functions
Th-Tu	3/23,28	5.3 – Logarithmic Functions
		5.4 – Properties of Logarithmic Functions
		5.7 – Equations/Natural Logarithms
Th-Tu	3/30,4/4	6.1, 6.2, 6.3 – Unit Circle/Trigonometric Functions
Wed	4/5	Lab III
Th-Tu	4/6,11	6.4 – Angles and Rotations
		Review
Wed	4/12	**TEST III**
Th-Tu	4/13,18	6.7 – Trigonometric Graphs
		11.5 - Combinatorics
Wed	4/19	Lab IV
Th-Tu	4/20,25	11.6 - Combinations
		11.7 - Binomial Theorem
		Review
Wed	4/26	**TEST IV**
Th-Tu	4/27,5/2	11.8 - Probability
		Exam Review