MATHEMATICS 101

Trigonometry and Algebra

Syllabus

Spring, 2002

Textbook: Larson and Hostetler, Precalculus, Fifth Edition, Houghton Mifflin Co.

Instructor: Mrs. Susan Riner
Seney 116C
4-8316

Course Goals and Content: The purpose of this course is to prepare students for academic success in college calculus (Mathematics 111). The course also provides the mathematical skills needed for Chemistry 141.

The first half of the course concentrates on general techniques involved with algebraic simplification, solving algebraic equations and inequalities, and the study of functions and graphs. The second half concentrates on transcendental functions (trigonometric, inverse trigonometric, exponential and logarithmic) and includes, as well, some miscellaneous topics of importance in calculus. A calendar of topics is given at the end of this syllabus.

Evaluation: Points will be distributed as follows:

Major tests (4 @ 100 points)	400 points
Quizzes	100 points
Final Exam	200 points
Total	700 points

In general, letter grades will be determined as follows:

A: 630 or more points
B: 560-629 points
C: 490-559 points
D: 420-489 points
F: fewer than 420 points

Credit and Advancement: (1) Math 101 is for elective credit only; that is, this course does not count toward satisfying the distribution requirements of Oxford College in mathematics.
(2) A grade of "C" or higher is required for continuation to Math 111 (Calculus I). (3) Students who have received credit for Math 100C and who subsequently pass Math 101 will receive a total of four semester-hours for the combination of Math 100C and Math 101 toward the 64 academic hours required for the A.A. degree and continuation to Emory College. Both courses, however, count in the student's total number of semester-hours and in computing the student's grade point average.

Tests: The four tests will be given outside the regular class time as follows:

Test 1: Friday, February 8, 2:15 p.m.

Test 2: Friday, March 1, 2:15 p.m.

Test 3: Friday, April 5, 2:15 p.m.

Test 4: Friday, April 26, 2:15 p.m.

Calculators are not permitted on tests.

Test Attendance: Students are expected to take tests at the scheduled times. Any conflicts or problems will be handled on an individual basis by the instructor. If a student has an excuse deemed legitimate by the instructor, arrangements will be made for the student to take a test **prior** to the testing time.

Homework: Assignments of exercises from the text and from handouts will be distributed. The most important factor contributing to success in Math 101 is the regular (done at least every other day) and successful (exercises correctly done with a degree of confidence) completion of the exercises. Daily practice is recommended. The goal is for the student to be able to solve problems in good style, unaided by books, notes, tutors or calculators.

Tutoring/Help Sessions: Student tutors will be available in the Gregory Room of the JRC. A schedule will be announced early in the semester. Help sessions will be scheduled as the demand arises. Attendance is optional.

Class Attendance: The student is responsible for the course material discussed in class. Therefore, the student is expected to attend all classes. An inordinate number of absences will be handled in accordance with the College's policies.

Other Concerns: Students needing special accommodations should submit the appropriate paperwork to the instructor and make arrangements with the instructor prior to the first graded assignment.

THE HONOR CODE OF OXFORD COLLEGE APPLIES TO ALL WORK SUBMITTED FOR CREDIT IN THIS COURSE. WHEN YOU WRITE YOUR NAME ON SUCH WORK, YOU PLEDGE THE WORK TO BE YOURS AND YOURS ALONE.

Mathematics 101 Topics

Wednesday, January 16	Algebra, Exponents and Radicals [P.1, P.2]
Friday, January 18	Polynomials, Factoring, Algebraic Fractions [P.3, P.4]
Monday, January 21	No Class
Wednesday, January 23	Review of Algebra
Friday, January 25	Equations [P.5]
Monday, January 28	Inequalities [P.6]
Wednesday, January 30	Common Errors [P.7]
Friday, February 1	Graphs [P.8]
Monday, February 4	Lines [1.1]
Wednesday, February 6	Review
Friday, February 8	**Test 1 at 2:15 p.m.**
Monday, February 11	Secant Lines [1.2]
Wednesday, February 13	Functions and Their Graphs [1.3 - 1.4]
Friday, February 15	Functions and Their Graphs [1.5 - 1.6]
Monday, February 18	Inverse Functions [1.7]
Wednesday, February 20	Quadratic and Polynomial Functions [2.1, 2.2]
Friday, February 22	Conic Sections [10.2, 10.3, 10.4]
Monday, February 25	Conic Sections (cont.)
Wednesday, February 27	Review
Friday, March 1	**Test 2 at 2:15**
Monday, March 4	Radians, Degrees and Trig. Functions [4.1, 4.2]
Wednesday, March 6	Right Triangle Trigonometry [4.3]
Friday, March 8	General Trigonometric Functions [4.4]
March 11 - 15	Spring Break
Monday, March 18	Graphs of the Sine and Cosine [4.5]
Wednesday, March 20	Graphs of other Trigonometric Functions [4.6]
Friday, March 22	Inverse Trigonometric Functions [4.7]
Monday, March 25	Fundamental Trigonometric Identities [5.1, 5.2]
Wednesday, March 27	Trigonometric Equations [5.3]
Friday, March 29	No class

Monday, April 1	Additional Trigonometric Formulas [5.4, 5.5]
Wednesday, April 3	Review
Friday, April 5	**Test 3 at 2:15**

Monday, April 8	Exponential Functions [3.1]
Wednesday, April 10	Logarithmic Functions and Properties [3.2, 3.3]
Friday, April 12	Exponential and Logarithmic Equations [3.4]
Monday, April 15	Systems of Equations [7.1, 7.2]
Wednesday, April 17	Systems of Linear Equations [7.3]
Friday, April 19	Sequences and Summation Notation [9.1]
Monday, April 22	Arithmetic and Geometric Sequences [9.2, 9.3]
Wednesday, April 24	The Binomial Theorem [9.5]
Friday, April 26	**Test 4 at 2:15 p.m.**
Monday, April 29	Review for Final Exam