

Mathematics 101
Trigonometry and Algebra
SYLLABUS
Fall, 2001

Instructors: Fang Chen
Office Location: Seney Hall 115
Extension: 4-4639
Email: fchen2@emory.edu
Office Hour: To be posted or by appointment

Textbook: Larson and Hostetler, *Precalculus*, Fifth Edition, Houghton Mifflin Company

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: The following written work will provide the basis of the student's evaluation:

Major tests (4 @ 130 points)	520 points
Quizzes	220 points
Final Exam	260 points
Total	1000 points

In general, letter grades will be determined as follows:

A:	900 or more points
B:	800-899 points
C:	700-799 points
D:	600 - 699 points
F:	Fewer than 600 points

Credit and Advancement: (1) Math 101 is for elective credit only; that is, this course does not count toward satisfying the distributions 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 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.

Class Attendance: The student is responsible for the course material discussed in class. Therefore, the student is expected to attend all classes.

Homework: Assignments of exercises from the text and from handout will be distributed. These assignments may be modified at the instructor's discretion. 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 as a remedy for lazy mental habits. The goal is for the student to be able to solve problems in good style, unaided by books, notes, tutors, or calculators.

Quizzes: A 5 - 10 minute quiz will be given at almost every meeting time.

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

Test 1: Friday, September 21, 2:15 p.m.

Test 2: Friday, October 12, 2:15 p.m.

Test 3: Friday, November 9, 2:15 p.m.

Test 4: Friday, December 7, 2:15 p.m.

Review sessions will be scheduled outside of class as needed. Test locations will be announced.

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. **There will be no make-up tests given after the test time.**

Final Exam: A cumulative final exam will be given at the time scheduled by the Registrar.

Written Style: Thoughts are expressed by sentences. Your written work must in complete sentences. Use mathematical symbols and computer science notations wherever appropriate; do not use a lot of words. Your work should be neat, orderly and legible. Pay attention to how the problems are worked out in the textbook.

Religious Holiday Observance: All students are responsible for negotiating their needs around religious practices with the instructor.

Special concerns: Students with disability concerns verified by the Disability Services at the University should approach the instructor as early as possible in the semester to ensure proper accommodations.

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 needed.

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 ARE PLEDGING THE WORK TO BE YOURS AND YOURS ALONE.

Some suggestions:

The main suggestion to a student is to **take the responsibilities**. The following is an incomplete list of advice a student should start with.

- Prepare for and attend the lectures, participate in discussions.
- Spend some time on studying the course every day.
- Form study groups.
- Ask questions, seek for help.
- Review before the tests, Reflect after the tests.

**Mathematics 101
Calendar of Topics
Fall, 2001**

Friday, August 31	Introduction
Monday, September 3	<i>Labor Day Holiday, No Class Meeting</i>
Wednesday, September 5	Algebra, Exponents, and Radicals [P.1, P.2]
Friday, September 7	Polynomials, Factoring, Alg. Fractions [P.3, P.4]
Monday, September 10	Review of Algebra [Hand-out]
Wednesday, September 12	Equations [P.5]
Friday, September 14	Inequalities [P.6]
Monday, September 17	Common Errors [P.7]
Wednesday, September 19	Graphing Representation [P.8]
Friday, September 21	Test 1, 2:15 p.m.
Monday, September 24	Graph, Lines [1.1]
Wednesday, September 26	Lines, Secant Lines [1.2]
Friday, September 28	Functions & Their Graphs [1.3, 1.4]
Monday, October 1	Functions & Their Graphs [1.5, 1.6]
Wednesday, October 3	Inverse Functions [1.7]
Friday, October 5	Quadratic & Polynomial Functions [2.1, 2.2]
Monday, October 8	Conic Sections [10.2, 10.3, 10.4]
Wednesday, October 10	Conic Sections (cont.)
Friday, October 12	Test 2, 2:15 p.m.
Monday, October 15	<i>Mid-Semester Break, No Class Meeting</i>
Wednesday, October 17	Radians, Degrees, & Trig. Functions [4.1, 4.2]
Friday, October 19	Right Triangle Trigonometry [4.3]
Monday, October 22	General Trig. Functions [4.4]
Wednesday, October 24	Graphs of Sine and Cosine [4.5]
Friday, October 26	Graphs of Other Trig. Functions [4.6]
Monday, October 29	Inverse Trig. Functions [4.7]
Wednesday, October 31	Fundamental Trig. Identities [5.1, 5.2]
Friday, November 2	Trigonometric Equations [5.3]
Monday, November 5	Trigonometric Formulas [5.4, 5.5]
Wednesday, November 7	Trigonometric Formulas (cont.)
Friday, November 9	Test 3, 2:15 p.m.
Monday, November 12	Exponential Functions [3.1]
Wednesday, November 14	Logarithmic Functions & Properties [3.2, 3.3]
Friday, November 16	Exponential & Logarithmic Equations [3.4]
Monday, November 19	Exp. & Log Equations (cont.)
Wednesday, November 21	Systems of Equations [7.1, 7.2]
Friday, November 23	<i>Thanksgiving Holiday -- No Class Day</i>
Monday, November 26	Systems of Linear Equations [7.3]
Wednesday, November 28	Sequences and Summation Notation [9.1]
Friday, November 30	Arithmetic & Geometric Sequences [9.2, 9.3]
Monday, December 3	Binomial Theorem [9.5]
Wednesday, December 5	Review
Friday, December 7	Test 4, 2:15 p.m.
Monday, December 10	Last Class Day, Review for Final Exam