

Math 101  
Spring, 1993

Text: Precalculus (6th edition) by Swokowski

I. Attendance will be taken and excessive absences will be dealt with accordingly.

II. Grading:

5 Tests (100 points each)	500 pts.
Quizzes/HW	100 pts.
Exam	<u>200</u> pts.
	800 pts. Total

A: 720-800  
B: 640-719  
C: 560-639  
D: 480-559  
F: below 480

\*\*A student must make at least a C in order to take Math 111.

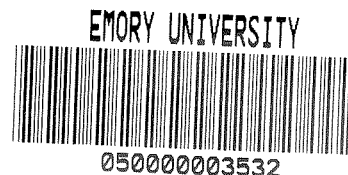
III. Topics

Wed., Jan. 13	1.1 - Real Numbers	
Fri., Jan. 15	"	
Wed., Jan. 20	1.2 - Algebraic Expressions --	Radicals
Fri., Jan. 22		Factoring
Mon., Jan. 25		Simplifying
Wed., Jan. 27	1.3 - Equations	
Fri., Jan. 29	"	

-- Test 1 --

Mon., Feb. 1	1.3 - Inequalities
Wed., Feb. 3	"
Fri., Feb. 5	1.4 - Coordinate System
Mon., Feb. 8	"
Wed., Feb. 10	1.5 - Lines
Fri., Feb. 12	2.1 - Functions
Mon., Feb. 15	2.2 - Graphing Functions
Wed., Feb. 17	"
Fri., Feb. 19	2.3 - Quadratic Functions
Mon., Feb. 22	Review

-- Test 2 --



Wed., Feb. 24	2.4 - Operations on Functions
Fri., Feb. 26	"
Mon., Mar. 1	2.5 - Inverse Functions
Wed., Mar. 3	3.1 - Polynomial Functions
Fri., Mar. 5	"

\*\*\*\*\* SPRING BREAK \*\*\*\*\*

Mon., Mar. 15	3.6 - Graphing Rational Functions
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-- Test 3 --

Wed., Mar. 17	4.1 - Exponential Functions
	4.2 - Natural Exponential Function
Fri., Mar. 19	4.3 - Logarithmic Functions
Mon., Mar. 22	4.4 - Graphs of Log Functions
Wed., Mar. 24	4.6 - Exp. & Log. Equations
Fri., Mar. 26	"
Mon., Mar. 29	Review

-- Test 4 --

Wed., Mar. 31	5.1 - Angles
Fri., Apr. 2	5.2 - Trigonometric Functions
Mon., Apr. 5	"
Wed., Apr. 7	5.5 - Trigonometric Graphs
Fri., Apr. 9	"
Mon., Apr. 12	5.6 - Additional Graphs
Wed., Apr. 14	Review

-- Test 5--

Fri., Apr. 16	6.1 - Trigonometric Identities
Mon., Apr. 19	"
Wed., Apr. 21	6.2 - Trigonometric Equations
Fri., Apr. 23	"
Mon., Apr. 26	Review

Instructor: Mrs. Jan Smith  
Office: 115 C Seney  
Phone: 4-8419

Office Hours: 9:00 - 10:00 MWF  
11:00 - 12:00  
1:00 - 3:30  
2:00 - 3:30 T TH

Quizzes: All quizzes will be take-home. You must be present in class to receive your quiz. Your two lowest quiz grades will be dropped at the end of the semester.

Honor Code: The Honor Code applies to all tests and quizzes. You may NOT work together on the quiz problems, nor should you ask the math tutors for assistance with these problems. If you need help with these problems or any others, please see me. If you become aware that students are copying quiz problems, you need to advise me.

Attendance: Attendance will be taken every day. You are expected to attend class. If you know you will be absent on the day a quiz is due, please bring your quiz to me before you leave or send it by another student. If a planned absence will cause you to miss a test, please make arrangements to take the test before you leave. In case of illness or emergency, please contact me as soon as possible.

\*\* To make up a test, your absence must be excused, and you must take the make-up test within two (2) days of the original test unless there are extenuating circumstances.

\*\* Do not ask to be excused from a test because you have another test or paper scheduled for the same day. If you have two additional tests scheduled on a test day, please see me about a possible postponement.

## Math 101 Precalculus

### PURPOSE

The purpose of precalculus is to prepare students for academic success in calculus by providing instruction in the following topics.

- Solving linear and higher-ordered equations and inequalities involving absolute value, radicals, rational expressions, exponential functions, logarithmic functions, and trigonometric functions.
- Simplifying algebraic expressions containing exponents, radicals, and rational expressions.
- Simplifying transcendental expressions involving exponential, logarithmic, and trigonometric functions.
- Identifying algebraic, exponential, logarithmic and trigonometric functions and determining the domain and range of each.
- Graphing algebraic, exponential, logarithmic, and trigonometric functions, and identifying vertical and horizontal asymptotes.
- Composing functions and determining the domain of the composition.
- Determining the inverse of a one-to-one function.
- Measuring angles in degree and radian measure.
- Defining the trigonometric functions as ratios of sides of a right triangle.
- Defining the trigonometric functions in terms of the coordinates of points on a unit circle.
- Proving trigonometric identities.

### EXPECTED RESULTS

During the course, the students will have the opportunity to demonstrate their understanding and mastery of the mathematical concepts and algebraic techniques listed above.