

Math 115: Precalculus
Fall Semester, 2001

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Brief Description of the Course:

The primary purpose of this course is to prepare students for calculus. The course assumes you have a good foundation in algebra. The course will include some selected topics from algebra, but its primary emphasis will be on the study of trigonometry and analytic geometry. Since the goal is to prepare you to study calculus, both theory and applications which might arise in calculus will be stressed. You will be expected to understand where formulas come from and, in some cases, derive the formulas for yourself.

However, mastering formulas and procedures for solving routine problems (the so-called "plug and chug" mathematics) is not sufficient. You will be expected to learn to solve non-routine, multi-step problems -- problems that are not just variations of worked examples -- that involve the use of formulas and methods of algebra, trigonometry, and analytic geometry. You will be expected to write-up solutions in mathematically correct form.

Prerequisites: Math 105 passed with a C - or better, or equivalent.

Materials:

Precalculus: Mathematics for Calculus. Third edition. (1998). Stewart, Redlin, and Watson. Brooks/Cole: Pacific Grove, CA.

In the past, a graphing calculator was required for this course. Since you now have your own laptops, the Math Department has provided a copy of the CAS (Computer Algebra System) called TI Interactive, which is installed on your computer. You use the CAS in much the same way you use a graphing calculator. Since classroom activities will often involve using the calculator, you'll be expected to boot up your computer when you come to class and have the TI Interactive program immediately available.

Many of you may have used graphing calculators in the past and may already have your own calculator. If so, you should bring it to class since it is more convenient to use than the CAS. If you decide to buy a graphing calculator, the Math Department recommends the TI-85 or TI-86 which are available in the NMU bookstore and various local stores.

You will be expected to use your CAS or your calculator when taking tests.

Assessment:

Some form of assessment will take place most every week. Forms of assessment will include: collected homework, announced quizzes, pop quizzes, and tests. There will be three (3) in-class tests and a cumulative final.

Participation will form part of the grade. Thus, attendance is required. Roll will be taken daily. Beyond your mere presence, to get full participation points, you'll be expected to be prepared and actively contribute to the activities and conversations of the classroom. You will be expected to have your text, computer or calculator, paper, and pencil at every class.

The two lowest Homework/Quiz grades will be dropped. As a result, no make-ups or late work on Homework/Quizzes will be allowed. A makeup for a missed test will be given *only* under exceptional circumstances and *prior* approval from me will be required.

Homework/Quizzes (10 total @ 20 pts each)	160 points
Participation	40 points
Tests (3 @ 100 pts each)	300 points
Cumulative final	200 points

A	93-100 percent	A-	90-92 percent	B+	88-89 percent	B	83-87 percent
B-	80-82 percent	C+	77-79 percent	C	70-76 percent	C-	67-69 percent
D	60-66 percent	E	below 60 percent				

Note: If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 1104 University Center (227-1737). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

Information card: Please answer all the questions below on the index card. Number your answers as indicated.

Front of card:

1. Name
2. Year in college
3. Major
4. Minor
5. What previous math courses have you taken in college and what grades did you get in those courses?
6. What math courses did you take in high school and approximately what grades did you get in those courses?
7. If you are repeating this course, when did you take it and what was your grade?
8. What additional math courses do you plan to take in college?

Back of card:

9. Why you taking this course?
10. Briefly, what are your career plans?
11. a. Do you have a graphing calculator? If so what kind?
 - b. If you have a calculator, are you {very familiar, somewhat familiar, totally unfamiliar} with its use?
 - c. If you don't have one, is there some kind of graphing calculator that you know how to use? If so, what kind and how competent are you at using it?