

Math 1730-001
Pre-Calculus

Syllabus
Spring 2019

Instructor: Mario Martinez
Office: DH 310

Email: mmrtnzcb@memphis.edu
Office hours: W 11:30 am – 12:30 pm DH 310
and T 1:00 pm – 2:30 pm DH 341

Class times: MW 12:40 pm – 2:05 pm, R 1:00 pm – 2:25 pm in DH 123

Credit: 4 hours

Course description: In this course we will cover exponents, radicals, quadratic functions, inequalities; relations and functions; inverse, exponential and logarithmic functions; solution of algebraic systems; trigonometric functions, identities, equations and graphs; angle measurements, sum, difference, half-angle and double-angle formulas; solution of triangles, and laws of sines and cosines.

Course objectives: This course is intended to prepare students with the mathematical background needed to take a course or course sequence in college-level calculus.

Textbook: Precalculus: Functions and Graphs, by Swokowski and Cole (Brooks/Cole, 12th edition).

Publisher's website: <http://webassign.net>
Class Key: memphis 9053 1907

Supplementary learning resources: Math Learning Center: Free tutoring is available M-Th 8am-7pm and F 8am-2pm. The Math Learning Center is located in DH 341.

Email requirements: ALL correspondence will be made through your University of Memphis email account. Be sure to include the course title Math 1730 in your email.

American disabilities act: If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with your instructor, or if you need special arrangements in case the building must be evacuated, give me the Office for Students with Disabilities prescription form the FIRST week of school.

Classwork: There will be problems handed out and expected to be completed in class. You may work in groups. If for some reason you leave early or cannot complete your work, please turn it in the following day. I will drop the lowest five classwork.

Quizzes: There will be a quiz after every chapter or several subchapters. You will have a week to complete each quiz. I will drop the lowest quiz.

Tests: There will be 4 tests and a comprehensive final exam. Should your final be higher than your lowest test grade, I will replace the test grade with the final. Any student who arrives late for a test may forfeit their right to take the test if another student has completed the test and left the classroom. There will be no make-ups for tests. Missed tests will count as 0 points. If you will miss a test because of an official school function you may schedule to take the test at a time prior to the original test date.

Final Exam is comprehensive. You must be present to take this exam on Wednesday, May 1, 10:00 am – 12:00 pm (noon). For a full schedule of all your final exams this semester, go to <https://www.memphis.edu/registrar/calendars/exams/19s-final.php>

Grading: Your letter grade will be determined on a standard 10% scale. Students need an overall grade of 90% for an A, 80% for a B, 70% for a C, 60% for a D, and below 60% is an F. I use a +/- grading, for the top/bottom 2 points in each scale. Your grade will be based on the activities below.

Attendance	10%
Classwork	20%
Quizzes	20%
Tests	30%
Final	20%

Attendance: Attendance is absolutely necessary for your success in this class. Therefore, you are expected to be in attendance and on time at every class session. If you miss class, it is your responsibility to find out what topics you missed and for completing any work missed.

Academic integrity: I encourage you to work with your classmates on homework or to have study groups for quizzes and tests; however, letting someone else do all the work while you just sit back and copy will not help you on your quizzes or tests. Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly, through participation or assistance will receive a zero, in addition to other possible disciplinary sanction which may be imposed through the regular institutional disciplinary procedures.

Cell phone use: Silence all cell phones and remove headphones when you are in class. You may not answer or talk on your cell phone during class.

Electronic devices: No iPads, cell phones, apple watches, headphones, or any other electronic devices allowed during tests.

Disruptive behavior from students will not be tolerated. Silence all cell phones. No excessive talking. If you must leave early, please sit at the end of the row and exit quietly.

Tentative Calendar (*subject to change*)

Topics

- 1.1 - Real Numbers
- 1.2 - Exponents and Radicals
- 1.3 - Algebraic Expressions
- 1.4 - Equations
- 1.5 - Complex Numbers
- 1.6 - Inequalities
- 2.1 - Rectangular Coordinate Systems
- 2.2 - Graphs of Equations
- 2.3 - Lines
- 2.4 - Definition of Functions
- 2.5 - Graph of Functions

Test 1 on February 6

- 2.6 - Quadratic Functions
- 10.1 - Parabolas
- 2.7 - Operations on Functions
- 4.1 - Inverse Functions
- 3.1 - Polynomial Functions of degree greater than 2
- 3.2 - Property of Division
- 3.3 - Zeros of Polynomials
- 3.4 - Complex and Rational Zeros of Polynomials
- 3.5 - Rational Functions
- 3.6 - Variation and Proportion

Test 2 on February 28

- 4.2 - Exponential Functions
- 4.3 - The Natural Exponential Function
- 4.4 - Logarithmic Functions
- 4.5 - Properties of Logarithms
- 4.6 - Exponential and Logarithmic Equations
- 5.1 - Angles
- 5.2 - Trigonometric Functions of Angles
- 5.3 - Trigonometric Functions of the Real Numbers
- 5.4 - Values of the Trigonometric Functions
- 5.5 - Trigonometric Graphs
- 5.6 - Additional Trigonometric Graphs

Test 3 on April 3

- 6.1 - Trigonometric Identities
- 6.2 - Trigonometric Equations
- 6.3 - Addition and Subtraction Formulas
- 6.4 - Multiple Angle Formulas
- 6.5 - Product to Sum and Sum to Product Formulas
- 6.6 - Inverse Trigonometric Functions
- 7.1 - Law of Sines
- 7.2 - Law of Cosines
- Euler's Formula and De Moivre's Theorem

Test 4 on April 18

Final Exam on May 1
