

Mathematics MAT 151 : Precalculus
Fall 2007
MWF 10:30 a.m. - 11:20 a.m., Hubbard 214

Instructor: Dr. Brad Emmons

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Course Materials

Precalculus, Fourth Edition, Faires and DeFranza (required)

Introduction

Precalculus is a course that is designed to familiarize the student with the basic concepts of mathematics required to succeed in a college Calculus course. The topics covered will include functions, algebra, trigonometry, graphing, exponential and logarithmic functions, and conic sections.

Exams

There will be two in-class exams as well as a final cumulative exam. The exams will test your ability to work through some of the computations, as well as your ability to apply the techniques to certain applications. The first exam is scheduled for Friday, September 28, the second exam is scheduled for Friday, November 2, and the final exam will be held on Saturday, December 15 from 1:00 to 3:30. All exams will count for 20 percent of your final grade. There will be NO make-ups for missed exams. Please look over your schedule as soon as possible. If you see a potential conflict, inform me immediately.

Homework

The best way to learn Mathematics is to solve problems. Homework will be assigned at the end of each class period and collected the following class period. I will choose 4 or 5 problems to grade in each assignment. To earn full credit for a problem, a complete solution to the problem must be submitted. Just writing down the answer will not earn full credit. In addition to points for each graded problem, 5 points on each assignment will count for completeness and neatness of the graded assignment. Late assignments will not be graded, but they will be eligible for the 5 completion points. If you are not in class the day an assignment is collected, you may turn in your assignment into my office later that day. However, your assignment will be considered late. The homework is designed to help you identify where you might have difficulties. If you encounter any trouble with an assignment or a concept, seek help! The homework will count for 20% of your final grade.

Quizzes

Every other Friday, starting with September 7th, we will have an in-class quiz. There will be a total of 6 quizzes throughout the semester. You should treat the quizzes as mini-exams, covering material from approximately 6 days worth of course work. The quizzes will consist of 4 or 5 problems similar to problems from your graded homework, and they are to make sure that you are keeping up with the concepts presented in class, and to identify where you are having problems before you take the exams. The quizzes will count for 20% of your final grade.

Attendance

Attendance in MAT 151 is extremely important. Although there is no official attendance policy, note that if you are not in class on a particular day, your homework will not be graded for a score. I will also require that you be in class at 10:30 a.m. and no later. If you are late to class, you may stay to enjoy the wonderful learning experience. However, your homework assignment for the day will be considered late.

Grading

Your grade in this course will be based on three main factors: homework, quizzes and exams. The homework will be worth 20% of your final grade, the quizzes 20%, and the exams 60%. In addition to these factors, minor ethereal factors such attendance, class participation, attitude, and improvement over the course of the semester can also affect your grade. To determine your final grade, 90–100% = A, 80–89% = B, 70–79% = C, 60–69% = D, 59 and below = F, with the top two percents receiving a +

and the bottom two percents receiving a –.

Calculators

Calculators may be used as an aid in understanding the concepts in this course. However, they will not be allowed on in class quizzes or exams.

Important Dates

Friday, September 7 – Quiz I
Friday, September 21 – Quiz II
Friday, September 28 – Exam I
Monday, October 8 – Fall Break
Friday, October 12 – Quiz III
Friday, October 26 – Quiz IV
Friday, November 2 – Exam II
Friday, November 16 – Quiz V
Friday, December 7 – Quiz VI
Saturday, December 15, 1:00 - 3:30 – Final Exam

Suggestions

Come to class with your homework assignment completed every day
Study for at least 30 minutes each day in addition to completing your homework assignment
Read the section we will be covering in class *before* arriving to class
Do not fall behind!
Come to office hours to discuss homework and concepts. I am here to help!

Syllabus

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Week 1	August 29	Course Policies, Syllabus, Section 1.2 – The Real Line
	August 31	Section 1.3 – The Coordinate Plane
Week 2	September 3	Section 1.4 – Equations and Graphs
	September 5	Section 1.6 – Functions
	September 7	Section 1.7 – Linear Functions, Quiz I
Week 3	September 10	Section 1.8 – Quadratic Functions
	September 12	Section 1.8 – Quadratic Functions
	September 14	Section 2.2 – Other Functions
Week 4	September 17	Section 2.3 – Arithmetic Combinations of Functions
	September 19	Section 2.4 – Composition of Functions
	September 21	Section 2.5 – Inverse Functions, Quiz II
Week 5	September 24	Section 2.5 – Inverse Functions
	September 26	Review
	September 28	Exam I
Week 6	October 1	Section 3.2 – Polynomial Functions
	October 3	Section 3.3 – Factors and Zeros of Polynomials
	October 5	Section 3.3 – Factors and Zeros of Polynomials
Week 7	October 8	NO CLASS
	October 10	Section 3.4 – Rational Functions
	October 12	Section 3.4 – Rational Functions, Quiz III
Week 8	October 15	Section 3.5 – Other Algebraic Functions
	October 17	Section 4.2 – Measuring Angles
	October 19	Section 4.3 – The Sine and Cosine Functions
Week 9	October 22	Section 4.4 – Graphs of Sine and Cosine
	October 24	Section 4.5 – Other Trigonometric Functions
	October 26	Section 4.6 – Trigonometric Identities, Quiz IV
Week 10	October 29	Section 4.6 – Trigonometric Identities
	October 31	Review
	November 2	Exam II
Week 11	November 5	Section 4.7 – Right-Triangle Identities
	November 7	Section 4.8 – Inverse Trigonometric Functions
	November 9	Section 4.8 – Inverse Trigonometric Functions
Week 12	November 12	Section 5.2 – The Natural Exponential Function
	November 14	Section 5.3 – Logarithm Functions
	November 16	Section 5.3 – Logarithm Functions, Quiz V
Week 13	November 19	Section 5.4 – Exponential Growth and Decay
	November 21	NO CLASS
	November 23	NO CLASS
Week 14	November 26	Section 6.2 – Parabolas
	November 28	Section 6.3 – Ellipses
	November 30	Section 6.4 – Hyperbolas
Week 15	December 3	Section 6.5 – Polar Coordinates
	December 5	Section 6.6 – Conic Sections in Polar Coordinates
	December 7	Section 6.6 – Conic Sections in Polar Coordinates, Quiz VI
Week 16	December 10	Review