Economics 3372 – Fall 2021
Mathematical Economics

Administrative Detail

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Course Description

This is a course in introductory mathematical methods for economics and other business majors. This means the class is an introduction to calculus and linear algebra for students of, mainly, economics and finance. It is expected that all students have had exposure to mathematics at the college level (at least, Math 1320, and preferably, Math 2301) and principles of economics. We will use the language of mathematics to describe situations which occur in economics. Mathematical modeling is an indispensable tool in economics, finance, business, and management. It is not always simple to use mathematics, but its language and techniques enable us to frame and solve problems that cannot be attacked effectively in other ways.

Grading

Quizzes: There will be 7 quizzes given on the following dates: 9/1, 9/15, 9/29, 10/13, 10/27, 11/10, 12/1. The quizzes will take about 20 minutes and will consist of mathematical problems to solve. The highest five scores will count toward your grade. The quizzes will be worth a total of 100 points (20 points each).

Tests: The first test will be on or about October 18 and will be worth 100 points. The second test will be given on the regularly scheduled final exam period and will be worth 100 points. Tests will consist of mathematical problems to solve.

Problems: A small number of problems will be assigned nearly every day. Occasionally, they will be collected and graded. However, the primary purpose is for you to gauge your mastery of the material and provide examples for class discussion.

Makeup: No makeup will be available for the bi-weekly quizzes as the lowest scores will be dropped. With prior arrangement, a make-up for the midterm will be given. The make-up must be taken prior to the tests being returned in class (usually the next class meeting after the test).
Notice of Policy on Cheating

Students are expected to be above reproach in all scholastic activities. Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure of the course and dismissal from the university. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or part to another person, taking an examination for another person, any act designed to give unfair advantage to any student or the attempt to commit such acts. Regents’ Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22.

Cheating includes, among others: (1) copying from the test paper of another student, engaging in written, oral, or any other means of communication with another student during a test, or giving aid to or seeking aid from another student during a test; (2) possession and/or use of materials during a test that are not authorized by the person giving the test, such as class notes, books, or specifically designed cheat sheets; (3) using, obtaining, or attempting to obtain by any method the whole or any part of an un-administered test, test key, homework solution, or computer program; (4) collaborating with or seeking aid from another student for an assignment without authority; (5) substituting for another person or permitting another person to substitute for one’s self, or to take a test; and (6) falsifying research data, laboratory reports, and/or other records or academic work offered for credit.

Plagiarism means the appropriation, buying, receiving as a gift, or obtaining by any other means another’s work and the unacknowledged submission or incorporation of it in one’s own academic work offered for credit.

Collusion means the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on scholastic dishonesty.

Since scholastic dishonesty harms the individual, all students, and the integrity of the university, policies on scholastic dishonesty will be strictly enforced.

Course Drop Policy

The last day to drop a class with an automatic “W” is Oct 29. After the student drop deadline, students. After the student drop deadline, a “W” can be assigned only under exceptional circumstances and only with the approval of the instructor AND the academic dean. The student must petition for the “W” in writing and must provide the necessary supporting documentation.

If you decide to drop the course prior to Oct 29th, do NOT ask me to drop you. Please go to the Records Counter in the Academic Services Building and request the drop there. This way you will
Students with Disabilities

be certain that you have been dropped and there will be no surprises at the end of the semester.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statue that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please contact the UTEP Center for Accommodations and Support Services 747-5148. Their email is cass@utep.edu. The office is located in 106 Union East.

University Electronic Mail Notification Policy (Use of Email for Official Correspondence to Students)

All students should become familiar with the University's official e-mail student notification policy. It is the student's responsibility to keep the University informed as to changes in his or her e-mail address. All official e-mail correspondence will be directed to the student's UTEP e-mail account. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week.

Use of Blackboard in Classes

This course uses Blackboard, a Web-based course management system in which a password-protected site is created for each course. Student enrollments in each course are updated each evening. Blackboard can be used to distribute course materials, to communicate and collaborate online, to post grades, to submit assignments, and to take online quizzes and surveys. You will be responsible for checking the Blackboard course site regularly for class work and announcements. As with all computer systems, there are occasional scheduled downtimes as well as unanticipated disruptions. Notification of these disruptions will be posted on the Blackboard login page. Scheduled downtimes are not an excuse for late work. However, if there is an unscheduled downtime for a significant period of time, I will make an adjustment if it occurs close to the due date.

Email Etiquette

I seldom look at my work email on nights or weekends, so do not look for an immediate response at those times. Otherwise I will try answer within 24 hours.
**Frequently Asked Questions (FAQ)**

Q1: I have to go to _____ (fill in some exotic location) on the day of the mid-term. Can I take the exam at another time?  
A1: No.

Q2: I have three other midterms on the same day and my cat has an appointment at the vet. Can I take the exam at another time?  
A2: No.

Q3: Two other economics classes have exams that week. Can we reschedule ours?  
A3: No.

Q4: My parents bought me airline tickets to _____ (fill in some exotic location) for the day before the final exam. Can I take the exam early?  
A4: No.

Q5: Will there be anything on the exam that is in the textbook or readings but wasn’t covered in class?  
A5: No.

Q6: Will the final be comprehensive?  
A6: Not by design, but economics is by its nature cumulative.

Q8: I did badly on the mid-term (which was given three weeks ago), but I had three midterms that week. I really need a good grade in this class. Can you count the mid-term less or maybe throw it out?  
A8: No.

Q9: I really need a good grade in this class but I didn’t do well on the mid-term and I’m not really prepared for the final. But it’s all my fault because I really enjoyed the class and got a lot out of it and you are a great instructor. Could I do an extra assignment to raise my grade?  
A9: No.

Q10: There was the worst snowstorm in the history of El Paso on the day of the mid-term. I tried to get to class on time but my car got stuck in the snow. I got out to walk but slipped on some ice and broke my arm. I came to class right after I left the emergency room but everyone was gone. Can I make up the exam?  
A10: Yes. Natural disasters are a valid excuse.

Q11: My car broke down and I didn’t make it in time for the mid-term. Can I make it up at another time?  
A11: No but see Q10.
TENTATIVE COURSE OUTLINE

PART I INTRODUCTORY TOPICS

Introduction

Chapter 1 Algebra

Chapter 2 Equations

QUIZ #1 September 1

Chapter 3 Miscellaneous

Chapter 4 Functions of One Variable

QUIZ #2 Sept. 15

PART II DIFFERENTIAL CALCULUS

Chapter 5 Properties of Functions

Chapter 6 Differentiation

QUIZ #3 September 29

Chapter 7 Derivatives in Use

QUIZ #4 October 13

Chapter 8 Optimization

TEST #1 October 18

Chapter 11 Functions of Many Variables

QUIZ #5 October 27

Chapter 12 Tools for Comparative Statics

QUIZ #6 November 10

Chapter 14 Constrained Optimization

PART III MATRIX ALGEBRA

Chapter 15 Matrix Algebra

QUIZ #7 December 1