



Math Tools For Economists I– ECON 1078-004

Instructor: Mark Valkovci
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appt.
website: Canvas

Office Hours
TWR: 2-3pm/ by

ECON 306

Lecture: MWF 1:00-1:50 pm

Course Content:

This course builds an understanding of the basic mathematical tools used in the economic field. As an applied course, there will be plenty of hands-on practice using examples that relate to both real world and common economic problems. The topics covered in this course will range from algebra to the basics of differentiation. The goal of this course is to provide students with a strong mathematical foundation in order to prepare them for future economics courses.

Prerequisites:

There are no prerequisites for this class

Required and Recommended Materials:

Required: Calculator. At least scientific level. Graphing calculators work fine.

Recommended:

Essential Mathematics for Economic Analysis 3rd edition by Knut Sydsaeter and Peter Hammond
This is the textbook that I will be using for this class. *This textbook is not required*, but can be a helpful resource. Finding a used copy, renting one or finding it in the library are the suggested ways to utilize this resource

Homework:

Homework will be given weekly in the form of worksheets. These worksheets are to be printed out and returned by the due date assigned in class. I will post due dates as well as reminders on Canvas, *but all homework will be turned into my office or to me in person*. Late assignments will not be graded or awarded any credit unless previous accommodations have been made.

Quizzes:

This class will not have any midterms. Instead, biweekly quizzes will be given to assess student understanding of the material. (Note: This method mean less cramming and stressing before large exams, and allows me as an instructor to have a better sense of what concepts students may be struggling with. These quizzes will always be given on Fridays unless otherwise noted in class. I will drop the lowest quiz score for each student at the end of the semester.

Final Exam:

There is a mandatory, cumulative final exam for this course. The final exam will be held at the time scheduled according to the registrar.

Grading:

Your final grade in this course will be determined as follows:

Item	Percent of Final Grade
Attendance	10%
Homework	20%
Quizzes	10% each (50%)
Final Exam Grade (Cumulative)	20%

I will assign you a letter grade which will include +/- . I will strictly adhere to the assignment of your letter grade based on your percentage grade in the class. This means I will not individually curve your letter grade to “bump” it up a letter grade. (e.g. an 89.9% will be a B+ and I will not move it up to an A -) Please speak to me if you have concerns about your grade at any point in the semester.

Cheating will not be tolerated in this course. This includes cheating on an exam, in recitation, or by using another student’s clicker during the lecture. ***If you are caught cheating I will assign you an F in the course.*** I will then meet with the Associate Chair of the Undergraduate Studies for the Economics Department, and we will report this to both the University and the Honor Council which could result in further discipline up to and including expulsion from the University.

Attendance and Classroom Policy:

I do not require clickers. Attendance will be calculated through a sign-on sheet each day. It is your responsibility to make sure you sign in each lecture. While in lecture, use common courtesy to respect other students around you (i.e. Do not leave early/play games on phones/laptops/etc.)

Cell phones are not allowed in the classroom. Electronic devices such as laptops and tablets that can be used to take notes may be used. However, the teaching assistants may occasionally walk around the lecture hall to ensure that these devices are being used for class purposes. Failure to comply will result in the removal of electronic privileges.

Email & Office Hours:

Contact me via email or by stopping by my office hours. Since there are many students in this class, please allow me 24 to respond to emails. I will typically only respond to emails during business hours. Additionally, if I feel that the answer to your email can be found on this syllabus, I will simply email you back “Syllabus.” Please do not be offended and try not to send these kinds of emails. Lastly, please start a new email when asking me a question rather than replying to a class-wide email.

I am not allowed, by law, to discuss grades with you or anyone else via email.

Tentative Schedule:

Week 1: Logic Review

Week 2: Algebra with real numbers

Week 3: Fractional Powers

Week 4: Solving equations with parameters

Week 5: Quadratic equations

Week 6: Nonlinear Equations

Week 7: Sums and Double sums

Week 8: Mathematical Proofs

Week 9: Linear Functions

Week 10: Linear Models

Week 11: Quadratic Functions

Week 12: Polynomials

Week 13: Exponential functions

Week 14: Logarithmic functions

Week 15: Differentiation

Week 16: Review

*This schedule, including the dates of the midterms are subject to change. Any changes in the exam will be announced at least a week before the scheduled date and will be confirmed in a class-wide email.

Additional Information:

Honor Code

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution.

Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>.

Discrimination and Harassment

The University of Colorado at Boulder Discrimination and Harassment Policy and Procedures, the University of Colorado Sexual Harassment Policy and Procedures, and the University of Colorado Conflict of Interest in Cases of Amorous Relationships Policy apply to all students, staff, and faculty. Any student, staff, or faculty member who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127, or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.

Classroom Behavior Policy

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity, and gender expression, age,

disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at

<http://www.colorado.edu/policies/classbehavior.html> and at <http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student code>.

Students with Disabilities

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Center for Community N200, and <http://www.colorado.edu/disabilityservices>.

If you have a temporary medical condition or injury, see guidelines at <http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.html>.

Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at <http://www.colorado.edu/disabilityservices>.

Religious Observance Policy

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. If you have a conflict, please contact me at the beginning of the term so that we can make proper arrangements. See full details at <http://www.colorado.edu/policies/fac relig.html>.