

Econ 4371/7371: Introductory Econometrics

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Office Hours: after each class meeting, or email me for a Zoom appointment

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Required Textbook:

- Hill, Griffiths, Lim, *Principles of Econometrics*, 3rd Edition (or 4th Edition), John Wiley and Sons, 2007

Stata guide for the textbook (very helpful but not required):

- Adkins and Hill, *Using Stata for Principles of Econometrics*, 3rd Edition, John Wiley and Sons, 2007

Web resources:

<http://principlesofeconometrics.com/>

Prerequisites:

Econ 4371: Economics 1014 or Economics 1000 or ABM 1041 and Economics 2371 or Stat 2200 or Stat 2500 or Stat 4710 or ABM 2225, or equivalent.

Econ 7371: Economics 3251 or 4351, and Statistics 2200 or 2500, or equivalent.

Organization:

The requirements are principles of economics and an introductory statistics course. Neither calculus nor matrix algebra are required. However, the course is rigorous, as we combine basic economics, algebra, statistical concepts, and computer applications. The students are taught to use the econometric software package STATA.

Technology:

A desktop or laptop computer is needed to run the statistical software.

Tentative Course Outline:

- An Introduction to Econometrics (Ch 1)
- Review of Probability Concepts (Appendix B)
- The Simple Linear Regression Model (Ch 2.1-2.3)
- Properties of the Least Squares Estimators (Ch 2.4-2.7)

Exam #1: Chapters 1-2: 100 points (March 2)

- Interval Estimation and Hypothesis Testing (Ch 3)
- Prediction, Goodness-of-Fit, and Modeling Issues (Ch 4)
- The Multiple Regression Model (Ch 5)
- Further Inference in the Multiple Regression Model (Ch 6)

Exam #2: Chapters 3-6: 100 points (April 18)

- Nonlinear Relationships (Ch 7)
- Heteroskedasticity (Ch 8)
- Dynamic Models, Autocorrelation and Forecasting (Ch 9)

If time allows:

- Random Regressors and Moment Based Estimators (Ch 10)
- Simultaneous Equations (Ch 11)
- Qualitative and Limited Dependent Variable Models (Ch 16)

Final Exam: Chapters 7-9 (possibly 10, 11, and 16): 150 points (May 8)

Tests & Grading:

As noted on the outline there will be 3 exams totaling 350 points. Exams consist of open-ended problems. You can expect traditional closed-book, closed-notes exams. A missed exam will be given a grade of zero points, **unless** the instructor is notified **prior** to the exam and the excuse is a valid, fully documented one, and one which is officially approved by the university. A make-up will be scheduled at the instructor's convenience.

In addition, homework will be assigned that will worth 100 points. Graduate student will also have to complete a project worth 100 points.

Your final grade will be based on the total of 450 possible points for undergraduate students and 550 points for graduate students. No extra credit work is possible. Late homework is not accepted.

Note: In this class there are both graduate and undergraduate students. All students will take the same exams and do the same homework. The homework and exams will be graded alike for all students. However, undergraduate and graduate students' course grades will be determined using differential standards. ***Undergraduates, you are not competing with graduate students for the A's and B's.*** An undergraduate student's performance will be compared only to that of other undergraduates. A graduate student's performance will be compared only to that of other graduate students. *A higher standard of performance is expected of graduate students.* Thus, if a graduate student and an undergraduate student have the same number of points at the end of the semester, the undergraduate student is likely to be graded higher.

Project: If an employer, family member or another contact is willing to supply data for a question of interest, the student is free to focus on that problem. If not, a problem will be provided. You are required to write a detailed report and present the question, your methodology, and write up your results. The report must be well written, with proper grammar and spelling. Extreme care should be given to avoid plagiarism.

The grading scale for this course **will not be more difficult than:**

97%-100% - A+	87%-89% - B+
93%-96% - A	83%-86% - B
90%-92% - A-	80%-82% - B-
77%-79% - C+	67%-69% - D+
73%-76% - C	63%-66% - D
70%-72% - C-	60%-62% - D-
Below 59% - F	

Course Requirements:

1. Students are responsible for keep up to date with the course content.
2. If possible, please bring a laptop to class.
3. Late assignments will be penalized (and possibly not accepted). While you may assist each other with the homework, what you turn-in should be your own work and in your own wording (no direct copies or photocopies allowed). Assignments must be turned in on time and in hard copy format (email submissions will only be allowed if discussed with the instructor before the due date).
4. If you are unable to complete an assessment according to the schedule, you should notify me well in advance to make other arrangements.
5. Cheating of any kind will result in an F grade. I expect all work to be your own and will allow no

outside materials to be used on exams (except a formula sheet to be provided). Each student is required to read and understand the University Policy on Academic Integrity (see below). I will strictly adhere to its provisions.

6. For each homework I will give you the opportunity to revise and resubmit your work according to my feedback. You can resubmit the homework as many times as needed until you get a score of 100%. The deadline to submit corrections is a week. The idea here is that if you work hard, you can get 100% on the homework.

ADMINISTRATIVE MATTERS

ACADEMIC INTEGRITY

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters.

[Standard of Conduct for Academic Integrity](#)

In addition, students are expected to adhere to this honor pledge on all graded work whether or not they are explicitly asked in advance to do so: "I strive to uphold the University values of respect, responsibility, discovery, and excellence. On my honor, I pledge that I have neither given nor received unauthorized assistance on this work."

STUDENTS WITH DISABILITIES

If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please let me know as soon as possible.

If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please establish an accommodation plan with the [MU Disability Center](#), S5 Memorial Union, 573- 882-4696, and then notify me of your eligibility for reasonable accommodations. For other MU resources for persons with disabilities, click on "Disability Resources" on the MU homepage.

ACCEPTABLE USE

The University of Missouri's Acceptable Use Policy (AUP) for information technology applies to Mizzou websites. The AUP addresses federal and state laws, university regulations, intellectual-property rights, software-licensing requirements and prohibitions against plagiarism and obscenity. This policy applies to all users including faculty, staff, students, and guest users of University of Missouri computer networks, equipment, or connecting resources.

[UM System Acceptable Use Policy](#)

COPYRIGHT

This section helps you understand copyright in course materials, student work and pages published on Mizzou websites.

[UM System Copyright Information](#)

EXECUTIVE ORDER NO. 38

When you record something that happens in a course (a lecture, class discussions, meetings, etc.) it has an impact on the rights of the people captured in that recording. For example, your instructor and the University may have rights to the intellectual property contained in that recording. At the same time, another student who may have been recorded has the right to privacy. In order to protect these rights, MU employs a policy (called “Executive Order No. 38”) to govern both situations you may encounter while taking a course--when your instructor allows recordings and when he or she does not allow them.

[Executive Order No. 38](#)

FERPA

The University of Missouri maintains educational records of students in accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA). Related topics include privacy policies at MU, display of student directory information, and details about how MU manages FERPA-protected information.

[Family Educational Rights and Privacy Act \(FERPA\)](#)

INTELLECTUAL PLURALISM

The University community welcomes intellectual diversity and respects student rights. Students who have questions or concerns regarding the atmosphere in this class (including respect for diverse opinions) may contact the departmental chair or divisional director, the director of the Office of Students Rights and Responsibilities, or the MU Equity Office.

[Statement on Intellectual Pluralism](#)

STATEMENT OF NONDISCRIMINATION

The University of Missouri does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, age, genetics information, disability, or status as a protected veteran.

[MU Statement of Nondiscrimination](#)

If you experience discrimination or sexual violence, you are encouraged (but not required) to report the incident to the Office of Institutional Equity. Learn more about your rights and options at the [Office of Institutional Equity](#) or by calling 573-882-3880. You also may make an anonymous report online.

If you are a survivor, or someone concerned about a survivor, and need immediate information on what to do, see [RSVP resources page](#). Both the Office of Institutional Equity and the RSVP Center can provide assistance to students who need help with academics, housing, or other issues.

In the event that you choose to write or speak about having experienced any of these forms of prohibited

discrimination or harassment, Mizzou policies require that, as your instructor, I share this information with the MU Office of Institutional Equity. They will contact you to offer information about resources, as well as your rights and options as a member of our campus community.

MENTAL HEALTH

The University of Missouri is committed to supporting student well-being through an integrated network of care, with a wide range of services to help students succeed. The MU Counseling Center offers professional mental health care, and can help you find the best approach to treatment based on your needs. Call to make an appointment at 573-882-6601. Any student in crisis may call or go to the MU Counseling Center between 8:00-5:00 M-F. After hours phone support is available at 573-882-6601.

Visit our website at <https://wellbeing.missouri.edu/> to take an online mental health screening, find out about workshops and resources that can help you thrive, or learn how to support a friend. Download Sanvello, a phone app that teaches skills and strategies to help you maintain good mental health. Log in with your Mizzou e-mail to unlock all the tools available through Sanvello at no additional cost to you.

LAST DATE OF ATTENDANCE AND IMPACT ON FINANCIAL AID

Federal regulations for financial aid require the student financial aid office to document the attendance of students who have received federal financial aid if they do not successfully complete any courses during the term. As a result, the last day of attendance (or activity) for any student receiving an F, U, or FN in this course will be recorded in the grade roster and reported to the financial aid office. **Based on the last day of attendance, students may be required to repay a portion of their financial aid award for the semester.**

A student's last day of attendance (or activity) is the last day on which a student participates in an academically-related activity at the University. These include:

- Attendance in class, lab, or an instructor's office hours
- The completion of an assignment or examination
- An appointment with a professor or e-mail correspondence regarding course material
- (Online courses only) For online courses, the last day a student submits an assignment or exam. Only logging into an online class without participating is not acceptable for last day of attendance

Please note that discussing a course withdrawal or notifying the instructor of an absence in class does not constitute participation for financial aid purposes. Moreover, any office hour visits or email correspondence must be related to the course material.

NETIQUETTE

Your instructor and fellow students wish to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea but you are not to attack an individual. Our differences, some of which are outlined in the University's

nondiscrimination statement, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambiance.

RELIGIOUS HOLIDAYS & ACCOMMODATIONS

Many religious faiths are represented in the student body. The University of Missouri does not restrict student free exercise of religion, unless 1) the restriction is in the form of a rule of general applicability, and does not discriminate against religion or among religions; and 2) it can be demonstrated that the application of the restriction is essential to furthering a compelling university interest, and is not unduly restrictive considering the relevant circumstance. The policy of the University attempts to strike a reasonable balance between accommodating the religious practice of students and meeting academic needs and standard.

Consult IDE's [Guide to Religions](#) for the form that can be used to notify an instructor of an absence associated with religious practice. Students are expected to notify their instructor(s) by completing and submitting this form in a manner that is consistent with the procedure outlined in the university's policy on student religious accommodation. Providing false information regarding sincerely held religious practice is a violation of the university's Standard of Conduct and will not be tolerated.

DECREASING THE RISK OF COVID-19 IN CLASSROOMS AND LABS

If you have tested positive for COVID-19 or have been identified as someone who needs to quarantine, do not attend class in person until the mandated period for isolation or quarantine has passed. Your instructor will work with you on arrangements to access class material while you are in isolation or quarantine.

Additionally, if you are experiencing any COVID-related symptoms, or are otherwise feeling unwell, do not attend in-person classes and contact your health care provider and/or student health immediately. COVID symptoms include: fever greater than 100.4 or chills; cough, shortness of breath or difficulty breathing; fatigue; unexplained muscle or body aches; headache; new loss of taste or smell; sore throat; congestion or runny nose; nausea or vomiting; diarrhea.

Please consult [Show Me Renewal](#) for further guidelines. This statement will be updated as information changes. Last updated August 9, 2022