

**Econ 4371/7371: Introductory Econometrics**

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Required Textbook:

- Hill, Griffiths, Lim, *Principles of Econometrics, 3<sup>rd</sup> Edition (or 4<sup>th</sup> 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, 3<sup>rd</sup> 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 in order 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 (October 6)

- 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 (November 15)

- 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 (December 14)

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 could 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.

7. We will follow university policy regarding masks. Please go to <https://renewal.missouri.edu/> to see the latest on COVID-19 policies.

### 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. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor or the Office of Academic Integrity.

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

The goal of the University of Missouri is to ensure an inclusive learning environment for all students. The University of Missouri Disability Center provides services and accommodations for students to participate fully in the learning experience and to experience equitable evaluation of their performance. Students (including online students) with a documented disability can contact the Disability Center to establish an Accommodation Plan. Documented disabilities include *hearing, vision, mobility, learning and attention, psychological health, and physical health*. Students' accommodations are implemented with the input of students to maximize the learning experiences. The MU Disability Center keeps information about a student's disability confidential.

Please notify me of your eligibility for accommodations as soon as possible. Additionally, if there are aspects of the course that present as barriers, such as inaccessible course content (e.g., learning assessments, PowerPoints, non-captioned videos, images, tables, PDFs) or if you need an immediate accommodation due to an injury, please contact me or the Disability Center as soon as possible.

### 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 Office of Academic Integrity, or the MU Equity Office.

### Nondiscrimination Policy

The University of Missouri does not discriminate on the basis of race, color, national origin, ancestry, religion, sex\* (including gender), pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, and any other status protected by applicable

state or federal law. Discrimination includes any form of unequal treatment such as denial of opportunities, harassment, and violence. \*Sex discrimination includes rape, sexual assault, sexual harassment, unwanted touching, stalking, dating/domestic violence, stalking, and sexual exploitation. Retaliation for making or supporting a report of discrimination or harassment is also prohibited.

If you experience discrimination or sexual violence, you are encouraged (but not required) to report the incident to the MU Office for Civil Rights & Title IX. Learn more about your rights and options at [civilrights.missouri.edu](http://civilrights.missouri.edu) or call 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 for Civil Rights & Title IX](#) 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 for Civil Rights & Title IX. They will contact you to offer information about resources, as well as your rights and options as a member of our campus community.

### FERPA

The [Family Educational Rights and Privacy Act \(FERPA\)](#) of 1974 is a federal law designed to protect the privacy of educational records; to establish the rights of students to inspect and review their education records; and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings. The law applies to any individual who is or has been in attendance at an institution *and* regarding whom the institution maintains educational records. Once students have matriculated to the University of Missouri, i.e. enrolled in course work, FERPA rights transfer to the student, regardless of the student's age.

Students can enable certain individuals to have access to their education records by signing a [FERPA waiver](#). The consent must specify records to be disclosed, state the purpose of the disclosure and identify the party or class of parties to whom the disclosure must be made.

### 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.

## 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 standards.

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.

## Academic Inquiry, Course Discussion and Privacy

When students 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, the 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 an instructor allows recordings and when they do not.

Instructors should inform students which applies to their course:

- In this class, students may not make audio or video recordings of course activity, except students permitted to record as an accommodation under section 240.040 of the Collected Rules.
- In this class, students may make audio or video recordings of course activity unless specifically prohibited by the faculty member. However, the redistribution of audio or video recordings of statements or comments from the course to individuals who are not students in the course is prohibited without the express permission of the faculty member and of any students who are recorded.

If the instructor doesn't specifically prohibit recording course activity, then the students are allowed to record and the same prohibitions regarding distribution apply.

Students who violate this policy are subject to discipline in accordance with provisions of section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.