1 Basic Information

Instructor David M. Kaplan; I prefer "Dave" but also go by "Professor Kaplan" or "Dr. Dave" or whatever other combination you feel comfortable with.

Online Course Access Canvas, https://canvas.umsystem.edu

Virtual Office Hours Every Thursday 11:15am-12:15pm and 7-8pm Missouri time (trying to accommodate different work schedules, time zones, etc.), on Zoom: https://umsystem.zoom.us/j/94763290982?pwd=eWh1UG43S3ViaGYzcENQU0hJc1RoQT09

Help Please post any questions to the appropriate Discussion on Canvas. I plan to respond within 48 hours. Section 5 has details. Please post a lot on the Discussions, so I have the opportunity to help you!

Personal Issues For personal issues irrelevant to all other students (e.g., an econometric problem at your job, house burned down, etc.), message me in Canvas (which goes to my email).

Dates/Times Please double-check all submission deadline dates and times. Canvas should display them in your local time zone, but they may seem unusual because they attempt to accommodate students across many time zones. Any dates/times in the syllabus or announcements refer to local time in Columbia, Missouri (you can Google "Missouri time").

Course Prerequisites This course builds upon fundamental concepts like random variables, probability distributions, estimation, and confidence intervals. That said, Chapters 2 and 3 provide some review of such concepts. (I do not require calculus or linear algebra.)

2 Textbook, Other Resources, and Software

Textbook and Videos I developed the textbook *Introductory Econometrics: Description, Prediction, and Causality* specifically for Mizzou students. Optional videos are in this playlist https://www.youtube.com/playlist?list=PLC9djFuhVkt6ye3LK_Wet8DCHaizNPsmI and linked throughout the textbook. Visit https://kaplandm.github.io/teach.html for links to the digital version (free PDF) and print version (purchase from Mizzou Publishing). The soft-cover print version is currently \$12.95 (\$0.04/page; I do not receive any payment).

Other Resources Additional good, free educational resources are linked at the beginning of each textbook chapter. Like the videos, these are all optional.

Software You will use statistical software. R is recommended; Stata is also allowed; see Chapter 1. ("Stata/IC" is fine.) If your job requires something else (SAS, etc.), please ask ASAP.

Software Accessibility and Privacy Certain accessibility standards may not be met by R and/or RStudio. There is an archived BrailleR package for blind users, but it is not actively supported. For help, please contact our Disability Services team (click the "Students with Disabilities" link in the "Support & Policies" tab in Canvas). Stata has an accessibility statement. There is a Privacy Policy for RStudio and privacy policy for Stata.

Textbook Accessibility and Privacy No data of yours is collected when you view the textbook (it's just a PDF file). Please let me know if you have accessibility issues, and I will work with you to find a solution.

3 Course Description and Goals (Learning Objectives)

You will be introduced to fundamental concepts and methods in econometrics, for description, prediction, and causality. The goal is to develop your practical ability to understand, critique, and conduct empirical econometric analysis. Mathematical models aid deeper, more precise understanding of practical issues. Specific methods include many variations on regression, as well as forecasting and quantifying uncertainty. The empirical exercises offer you practice writing code for such methods.

The learning objectives for this class are listed as the Textbook Learning Objectives (TLOs) in the textbook. By the end of the semester, you will be able to do everything listed in the TLOs.

4 Schedule and Assessments

(See also Section 9, "Grading Criteria")

Schedule and Deadlines Each week of the semester has its own Module in Canvas. This describes the learning materials and assessments for that week, with links to the corresponding Discussions and assessments. You can see the submission deadline and other details for each assessment by clicking on it in Canvas.

Assessment: Exercise Sets Each exercise set (ES) is a set of multiple choice questions you complete in Canvas. You may discuss ES questions with others students and me (on the corresponding Discussion in Canvas, or in office hours) and ChatGPT/etc., but you must submit your own in Canvas to get credit. After you submit, you'll be able to see your score but not which question(s) you got correct. If you are not satisfied with your score, then you may try again (up to the maximum number of attempts shown in Canvas); only your most recent score will count toward your grade. For example, if you first score 5, then 5 again, then 7, then finally 8, your score on the ES is 8, the most recent score. However, "most recent" is not necessarily "highest"; for example, if you first score 8 but don't know which you got wrong (you just had several lucky guesses), then you might next score 7; if you don't submit anything else before the deadline, then your official ES score is 7 (most recent), not 8 (highest). Soon after the submission deadline, you'll be able to see not only your score, but also your responses along with the correct responses. Because of this, late submissions receive zero credit.

Assessment: Empirical Exercises Each *empirical exercise (EE)* consists of writing and running R code (or Stata code), following relatively explicit instructions. The different EE options are at the end of each chapter in the textbook. You submit these through Canvas, where there are further submission details and scoring rubrics. Because most students are new to statistical software, empirical

exercises are essentially scored on effort. (If you find the EE too easy, you can try some of the "optional" steps at the end, but there is no extra credit.) You may discuss EE steps with other students (and me), but you must submit your own, including both your code and the results/output.

Assessment: Exams Each *exam* is in Canvas and multiple choice, very similar to an ES (in both structure and content; e.g., no coding questions), but with more questions and restricted time (see Canvas for details). The instructions say, "You may use any materials you want: eBook, textbook, Wikipedia, notes, etc. But, you may not consult with any other person or artificial intelligence (whether in person, by text, email, etc.). There is no penalty for guessing." Although there is technically a time limit, almost all students submit exams before the limit, often an hour or more before. The first midterm exam covers chapters/weeks 2–4; the second midterm covers chapters/weeks 6–10; and the final exam is cumulative (covering chapters/weeks 2–15).

Assessment: Discussion Questions Each (non-exam) textbook chapter also has discussion questions (DQs) throughout the chapter. In Canvas, you respond to one of them (your choice), and you can then optionally read and reply to other students' responses. Your score is entirely based on participation, i.e., did you submit a response (that addresses the DQ) or not? (If the question is, "Explain why you think method A or method B is better in this case," then "I think B" does not count as a response because it does not even attempt to respond to the prompt.) You may discuss DQs with other students, but you must submit your own.

Assignment Credit Not every assignment is mandatory. You may choose to submit any 9 ESs, any 5 EEs, and any 8 DQs. More specifically, your lowest ES, EE, and DQ scores will be dropped, so only your best scores count. This is intended to account for any illness or emergency (work, family, etc.) that prevents you from doing that week's assignments; that's fine, they'll just get dropped automatically, with no need to document them or notify me. You may also skip a week of assignments for more frivolous reasons, although to get the most out of this course, you may still wish to do as many ESs, EEs, and DQs as you can.

5 Discussion Boards

5.1 Discussion Boards Structure: Where to Post What?

There are different Discussions for different types of posts. Please post a lot, so I can have the opportunity to help you!

"Logistical/administrative questions" is for your questions like, "is the running Total Grade Estimate in Canvas a reliable measure?" Often the answer is in the syllabus or can be seen in Canvas, so please check first.

"Chapter X: your questions (optional)" is for your questions about the material in Chapter X (1, 2, 3, ...). You are encouraged to ask questions here when working through the assignments (Exercise Sets and Empirical Exercises), as long as it's not just, "What's the answer to Question 3?" You can also ask questions here about exam questions you missed (or guessed correct but don't understand);

e.g., if Question 38 on the final exam is about material from Chapter 15, then ask about it in the Chapter 15 Discussion.

"Chapter X: textbook DQs" is for your Discussion Question responses each chapter.

5.2 Discussion Boards "Etiquette"

First, obviously, be respectful to each other (this has never been an issue before).

Second, start your post with an abbreviation of the corresponding assessment question, if applicable. This helps other students and me to find relevant posts more easily (with the search/filter function). For example, start your post, "ES4.10: if the conditional distribution..." to ask about Question 10 on the Chapter 4 Exercise Set. Other example abbreviations: write "DQ6.2" to reply to Discussion Question 6.2; "mid1.8" for Question 8 on Midterm 1; "final Q11" for Question 11 on the final exam.

Third, if you want to link to another post, search for it within that Discussion (using the text box next to the Unread button), then "right-click" (or two-finger tap or...) on the "View in discussion" link and select "Copy link address" (or something similar).

Fourth, try to keep your posts vertically compact. The Discussions and subthreads can get very long, so this helps make it easier to scroll through. For example, please do not add extra blank lines (besides the default spacing between paragraphs), or an extra line at the bottom with only your name (which is already displayed automatically at the top). If you want to start with a greeting like "Hello," then just continue your post on the same line.

6 Expectations

What I (and your peers) Expect from You You should access the course site regularly (multiple times per week) to read announcements, access and submit exercises, interact on the discussion board, etc. On the discussion board, you are expected to participate while showing respect for others, and helping or receiving help as appropriate. Please consider that sarcasm and related joking is easily misunderstood online. Together we can build a polite, respectful community with the shared goal of learning econometrics.

What You May Expect from Me You may expect me to do the following.

- Monitor and/or reply to discussion board posts and private messages within 48 hours.
- Provide timely feedback on assignments.
- Help build a learning community.
- Welcome your feedback on the class and consider it seriously (even if we ultimately disagree). Past students' feedback has helped me understand students better and improve this class; you are now benefiting from their comments.
- Provide you with ample opportunity to practice your new skills and understanding, which is critical to learning. Imagine training for a marathon by listening to lectures on running form

and reading books about optimal training routines without ever actually running or exercising. It is just as foolish to have training in econometrics without any exercise sets.

- Be patient when you are struggling with a new concept; this is how learning occurs, actively and not passively.
- Treat you with respect, as fellow adults who want to learn more about my favorite subject: econometrics!

7 Course Success

To succeed in this class, you should do the following.

- Try hard on all assignments.
- Ask questions when you need help.
- Start the assignments as early as possible in order to realize what you don't understand in time to ask questions.
- Ask questions of your classmates through the discussion board.
- Deepen your understanding by attempting to answer your classmates' questions.
- Respect your classmates: listen first, think second, talk/type third.

Regarding the debated existence of "dumb questions": some questions indeed seem to be smarter than others (having asked my own share of "dumb" questions over the years), but you should expect me to treat you with the same level of respect regardless of your question's intelligence. I equally highly value all honest questions.

8 Late Work Policy

For exercise sets and exams, since feedback is provided (approximately) at the submission deadline, late submissions receive a score of zero. Please, please check and double-check the deadlines, especially for exams; they may be somewhat odd depending on your time zone (like 4:59am in Lagos or something).

In case of an emergency such as serious illness, family emergency, or a legitimate conflict with recognized University activities, you must contact me immediately (i.e., *before* the exam or deadline) to request a makeup assessment and provide documentation of the emergency. If you miss (and don't make up) both midterms or the final, then you will likely get an F as a semester grade. "Incomplete" is only given in very special circumstances; see https://registrar.missouri.edu/policies-procedures/incomplete-grades/

9 Grading Criteria

Table 1 shows the relative weighting of assignments that comprise the total semester score.

Assignment	Percent
DQ participation	10
Empirical Exercises	20
Exercise Sets	28
Midterm exam $\#1$	12
Midterm exam $\#2$	15
Final exam (cumulative)	15
Total	100

Table 1: Relative weighting of assignments (percent of total).

Letter grades: A range is 90–100% (with 98% the threshold for A+ and 93% the threshold between A- and A), B range 80–89.99% (thresholds 87% and 83%), C 70–79.99% (thresholds 77% and 73%), F below that. Any "curve," if it seems appropriate, will *not* enforce predetermined grade *proportions* but rather move everyone up together; you are not competing with other students for a fixed number of A grades. Scores are not rounded before mapping to letter grades. (If you really want rounding: subtract 0.5 percentage points from the curve but round before mapping; it's equivalent.)

For example, if the "curve" adds 5 to everybody's raw semester total, and your total was 84.7%, then adding 5 gives 89.7%, which is a B+. Or if you had 85.1%, then adding 5 gives 90.1%, A-. (Note that this is equivalent to adding 4.5 and rounding before mapping to letter grades.)

10 Technical Requirements and Help

Technical help: see various contact info (email, phone, live chat) at https://doit.missouri.edu/ tech-support (or within our Canvas site: click "Support & Policies" in left-hand navigation links, then look under section "Tech Support")

This class is fully online, so you must have reliable access to a computer connected to the internet. Other basic technical skills are required, such as navigating the course website and using a text editor. Additionally, you must use R or Stata statistical software, which may require you to download and install software; see Chaper 1 in the textbook for details.

If you anticipate internet connection problems during an exam: try to find a different computer that won't have problems. Failing that, print-to-PDF the exam as soon as you open it (so you have a .pdf file on your computer), and then start marking answers in your copy of the PDF. Email us the marked .pdf file within the allotted time window (we can see the time you send the email and the time you started the exam in Canvas). Then try copying answers from the .pdf back into Canvas, to save me the time (and possibly reduced accuracy) of manually grading. As a last resort, you could send us the PDF (or clear pictures of it) with your phone using cell data. Most important: failing to submit the exam by the deadline and only telling us about internet problems afterward will not get you credit.

11 Other Resources

Library You may access the University of Missouri Library Distance Education Support Service page at https://libraryguides.missouri.edu/distance/

Student Support Click "Support & Policies" on Canvas. There, Tech Support has various resources for tech support, and Learning Resources has links to resources like the Learning Center. (Note: I strongly advise against NetTutor for this particular course; I have seen past transcripts where they misled students, providing wrong information that caused students to do *worse* on the exercise sets!)

Other Resources See the University's Academic Policies and Expectations, also in "Support & Policies." The "Other Student Resources" page is linked there, for Financial Aid, Counseling Services, and Academic Advising.

12 Other Policies

Academic Integrity Pledge "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." You are expected to adhere to this pledge on all graded work, whether or not explicitly asked in advance to do so. Further details on academic integrity are in Canvas: in "Support & Policies," under "MU Policies & Expectations," please read "Academic Integrity." See also the Standard of Conduct for Academic Integrity.

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 email correspondence regarding course material;
- 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.

Other Policies Also in "Support & Policies" under "MU Policies & Expectations," please see

- Statement of Nondiscrimination
- Students with Disabilities
- Mental Health

and anything else that interests you. Information concerning student grade appeal procedures and non-academic grievances and appeals may be found in the Student Handbook.