

Intro to Econometrics: ECON 3543
Section 201
Spring 2022
Dillard 306: Tuesday/Thursday 12:30 – 1:50 PM

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Office Hours: **Tues. 11:00 to 12:00**
 Wed. 10:00 to 2:00
 Thurs. 11:00 to 12:00
 Also available by appointment

(Always available by email- that is the best way to reach me)

Course Description

From the MSU Catalog:

Economics (ECON) 3542 Section 201

Prerequisites: Junior standing or above or consent of the chair, and BUAD 3033. The application of statistical methods to economic and financial analysis; particular attention is given to regression analysis including limited and dichotomous dependent variables, regression diagnostics, hypothesis testing, analysis of variance, and selected topics in time series forecasting.

In my opinion:

Econometrics is useful both in conducting and writing your own research, but also can be of enormous value when you are interpreting someone else's research. When you read the newspaper about a new finding in any field, you can apply the research methods you learn in this course to determine the level of trust you can place on those reported findings. The beauty of this course is that you will learn useful tools to allow you to further your own interests and knowledge in any area or field of study.

Learning Objectives

1. Be able to explain and identify basic assumptions and common pitfalls in using ordinary least squares, probit, and logit regressions. [common pitfalls including, but not limited to: omitted variable bias, reverse causality, sample selection problems, heteroskedasticity, and simultaneous equation bias]
2. Distinguish between studies presented in the news and social media which identify a causal effect versus a correlation.
 - 2.a. Explain how this ability identifies your role as a socially responsible citizen.
3. Identify a potential research topic and compile an appropriate dataset to analyse that topic.
4. Utilize software (Excel or Stata) to estimate a model using data. Interpret the coefficients for economic and statistical significance.

Text:

1. **MyEconLab access for *Introduction to Econometrics*, 3rd edition** (updated), by Stock and Watson, Pearson Publishing. We are participating the the Follett Access program through MSU which means you already have access to the ebook and online homework materials through our course in D2L. You cannot hope to do well in my course without this text. Read each chapter multiple times. Each time you read the material, you come away with a more solid foundation. **[REQUIRED]**
2. **STATA Software:** STATA can be purchased from the following website- the “Small Stata” should be sufficient for our purposes in this course. The cost is \$32 for a 6 month license, but you must also send (email or fax) a copy of your student ID to get this lower price. We will use this during the second half of the semester, so you do not have to purchase it immediately, unless you would like to. I suggest waiting until you are sure you will remain in the course before you purchase. The website has all relevant details. (<http://www.stata.com/order/new/edu/gradplans/student-pricing/>) **[Strongly Encouraged]**

Once you begin using STATA, there are numerous online resources to help you as you learn the software. Besides merely googling your questions (in which case generally the answers are provided by STATA commentary), you can review topics covered by STATA support: <http://www.stata.com/support/>. This should always be your first resource for problem-solving as you code.

We will discuss software use later, however, if you are opposed to getting Stata you may use Excel to do ALMOST the same estimations.

Another vital component to our course is the service-learning project which will comprise the majority of the semester. Service learning is defined as “a course-based, credit bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflects on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility” (Bringle & Hatcher, 1995).

Course Website:

I will use D2L to provide relevant course materials like grades, assignments, and supplemental notes. You can see each individual assignment grades for the first half of the semester on MyEconLab.

I will send emails to your MSU email, so please check regularly. (If you do not use your MSU email you should set up forwarding so you do not miss important information!

My office phone number is listed on this syllabus, but email is the best (and fastest) way to reach me.

Grading Policy:

Your grade in this class will be determined by your performance on one exam, MyEconLab homework and in-class assignments, and a large research project.

We will not have traditional “homework” in this class. The main assignment is our policy project, which will take up much of your outside class time. Additionally, we will have MyEconLab assignments based on readings and topics we cover each week. We will often have time to work on these assignments in class.

The exam will be worth 20% of your grade. If you miss the exam, you will receive a grade of zero, unless I am notified **prior** to the exam and the excuse is a valid, fully documented one. Again, you must notify me **PRIOR** to the exam date and time in order to be able to take a makeup (or as soon as feasibly possible if there is an emergency). **NO EXCEPTIONS.**

The research paper as a whole will be worth 50% of your grade. This includes assignments submitted before the final paper is due (research idea, drafts, group sessions, peer editing, etc.), which will be worth 25% of your final grade. In order to receive credit for these “paper prep” assignments, you **MUST** turn them in on time. **No partial credit for late prep work will be accepted.** The final report

MUST be submitted by the date and time provided. Depending on the situation, I reserve the right to accept or deny late submissions for the final report.

You will be asked to submit paper-related assignments electronically.

I follow the standard grading scale, where 89.5 and above is an A, 80-89 is a B, etc.

Grading is summarized as follows:

	<u>Weight</u>
Exam	25%
Homework assignments	25%
Research Paper Prep	25%
Final Research Report	20%
Presentation	5%

Cell phone use is not permitted in my classroom, ever. If your phone rings, or I see you texting you will be asked to leave for the day. This is also the case for any other disruptive behavior (talking, sleeping, or anything else that is disrupting those around you).

My Responsibilities:

This is a college course, and as such, I expect you to put in your time and effort to do well. I want everyone to succeed, and will come to class prepared and ready to answer your questions and facilitate your learning.

My response time for email questions will be 24 hours at most during the week, and I will respond to weekend emails before the end of the day on Mondays. However, rarely will my response time really be this long.

Academic Dishonesty

Students will adhere to the highest professional and ethical standards. All work submitted will be the result of each student's own effort only. Cheating will be penalized to the maximum allowed by the University policy which may include a final course grade of "F" and referral to the Dean of Students for disciplinary action. Though you are allowed to work together for assignments, you should submit your own work and not someone else's. Exams will always be individual. Please refer to the "Student Honor Creed" for other questions related to academic honesty. (See "Student Handbook 2019-2020).

If you are caught using a graphing calculator or cellphone during an exam, this will be considered a form of cheating and you will be penalized accordingly.

Students with Disabilities: Your success in this class is important to me, and it is the policy and practice of Midwestern State University to create inclusive learning environments consistent with federal and state law. If you have a documented disability (or need to have a disability documented), and need an accommodation, please go to the Disability Support Services (Clark Student Center, 168) office regarding formal documentation for me to address specific needs and the requirements of the course. Their phone number is (940) 4140. For more information: <https://msutexas.edu/student-life/disability/> **Nondiscrimination:** MSU adheres to a policy that enables all individuals, regardless of race, color, gender, national origin, age, sexual orientation, veteran's status, or disability to work and study in an environment unfettered by discriminatory behavior or acts. Harassment of an individual or group will not be condoned and any person – student, faculty, or staff member – who violates this policy will be subject to disciplinary action.

In order to help students keep track of their progress toward course objectives, the instructor for this class will provide a Midterm Progress Report through each student's WebWorld account for any student at risk of failing the course. Midterm grades will not be reported on the students' transcript; nor will they be calculated in the cumulative GPA. They simply give students an early warning at the midpoint of the semester. Students earning below a C at the midway point should email Dr. Q to set up a meeting to discuss potential remedies (including study habits/tutoring/etc.)

COURSE OUTLINE

You are expected to read the textbook BEFORE coming to class. I will rarely be lecturing and instead, our class time will be spent working problems, examples, and applying the concepts you should have read about prior to class. It will be difficult to follow if you are not prepared. That being said, I do not expect you to understand everything from the chapters on your own. Please ask questions in class about topics you find challenging or confusing in the text.

Both notes from class and your textbook are vital to your success this semester.

Weekly Schedule (Tentative)

Jan. 11/13: Syllabus review, Economic Questions and Data (Ch. 1)

Jan. 18/20: Review of Probability (Ch. 2) and Review of Statistics (Ch. 3)

Jan. 25/27: Linear Regression with One Regressor (Ch. 4)

Feb. 1/3: Regression with a Single Regressor: Hypothesis Tests and Confidence Intervals (Ch. 5)

Feb. 8/10: Linear Regression with Multiple Regressors (Ch. 6) and Multiple Regression in Excel

Feb. 15/17: Introducing Data and Regression in Excel, Our Class Project and Hypothesis Tests and Confidence Intervals in Multiple Regression (Ch.7)

Feb. 22/24: Assessing Studies Based on Multiple Regression (Ch. 9)

March 1/3: Review for Exam and **Exam on March 3**

March 8/10: Writing a Model, Finding Sources, etc., Presentation Prep, Studenmund Chapter 11: Running Your Own Regression Project, Zoom Meetings with Dr.Q (March 10)

March 15/17: Spring Break

March 22/24: How to write an introduction/literature review, Existing Research and Data, and Research period

****Research proposal ideas due on D2L BEFORE midnight March 24****

March 29/31: Regression with a Binary Dependent Variable (Ch. 11), Review of Existing Studies and In class Progress Meetings

April 5/7: ** Individual Research Presentations April 5 and 7 on zoom**, Group Assignments/ Idea Session, Discussion

April 12/14:,

****Research Proposal Draft Report and Poster due before midnight April 14: with at least 3 peer-reviewed sources and summaries**

April 19/21: Group Draft Feedback Meetings/ Individual Research Time

April 28: Final Poster Upload Due BEFORE MIDNIGHT If you want feedback from me please submit EARLY. I will not provide feedback to any poster presentations submitted after midnight on April 26.

Digital Poster Presentation for service-learning partners and other COB Faculty must be uploaded to D2L (or emailed zoom link) BEFORE Thursday May 5 at 10:30.