

ARE 258: Demand & Market Analysis
Agricultural & Resource Economics
University of California, Davis

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Office Hrs: * W 9am-noon or by appointment

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Course Objectives: This applied microeconomics course is designed as the capstone course of the M.S. program in Agricultural & Resource Economics. The primary objective of the course is to help you synthesize your training in microeconomic theory and econometrics and further refine your research skills in applied economics. As you develop these research skills, you will be better able to (i) conceptualize important and interesting research questions, (ii) formulate modeling strategies for addressing these questions framed as testable hypotheses, (iii) use defensible econometric techniques and appropriate data to test these hypotheses, and (iv) understand the practical implications, strengths and weaknesses of your research approach and results. By helping you structure your approach to practical problem solving and analysis, these research skills will allow you to inform academic, policy and industry discussions across many fields of applied economics.

Course Structure: There is often a gap between students' textbook understanding of theory and techniques and their ability to apply this understanding to research problems that are not framed as problem sets or exam questions. Bridging this gap involves a lot of tacit learning, which requires careful study of different research questions, analyses and methodologies. The structure of this course aims to facilitate this learning process by having you study, review, present, and discuss research articles from four broad areas of applied microeconomic analysis: (1) Consumer Demand, (2) Production & Supply, (3) Innovation & Technology, and (4) Market Structure & Integration.

In our study and discussion of these papers, we will focus both on substantive topical issues related to the specific research question and on practical research techniques and methodologies used in the paper. We will devote two weeks to each of the four research areas. At the beginning of each of these modules, we will review and study the relevant theory, interesting empirical questions and common research methodologies. We will use selected *survey readings* from the particular research area to structure our study and discussion. In the second part of each module, we will narrow our focus to a selection of *application articles* in the area with specific and empirical applications. You will be expected to study these papers thoughtfully and to write a brief reaction to each article. Working in small groups, you will also compose a more comprehensive review of a selected article from each area and will have a chance to present the article to the class.

In pursuit of our primary objective – to help you synthesize your training and develop a functional research skill set – I will evaluate your performance based on the following:

* During my scheduled office hours, I am at your disposal. Barring personal emergencies, I will drop anything to address your concerns or questions during this time. Likewise, if you schedule an appointment outside these office hours, I will ensure that you have my full attention during our time together. If you have not scheduled an appointment and would like to visit outside office hours, you are welcome to stop by my office directly, but I reserve the right to defer your visit to a later, mutually-agreeable time.

Brief Article Reactions: You will select and read two application articles for each module. After thoughtfully reading and studying each application article, you will prepare a brief, 300-400 word reaction that includes (i) your own description (i.e., few, if any, direct quotes) of the research question, methodology, and results; (ii) a discussion of at least one strength and one weakness of the article; and (iii) three specific questions you would like to ask the author. Formulating these Brief Article Reactions (BARs) will help you prepare to participate meaningfully in class discussions. They will be due at the beginning of class on the day we begin discussing the application articles.

Collaborative Article Reviews: In every research module, you will collaborate in teams of two or three students to compose a 900-1000 word Collaborative Article Review (CAR) for a single application article. These team collaborations are an essential part of the course and are therefore required (i.e., no 'alone' work is permitted). Although a few other teams may be working on the same article, your CAR must be the work of you and your collaborators alone. Since you will still be responsible for writing your own BAR to your selected article, you should start by sharing and carefully discussing this reaction with your collaborators.

A CAR will present a more extensive, more thoughtful treatment of the three BAR elements above. In addition, a CAR will include a discussion of 'meta-lessons' learned about conducting research in applied economics (i.e., beyond the article's explicit focus). We will discuss the CAR format in greater detail before the first one is assigned.

At least once during the quarter, you and your collaborators will use your CAR to present the article to the class and lead a detailed discussion of the article. Each module will conclude with a *peer teaching session*. At the beginning of each of these *peer teaching sessions*, I will select a team to present and lead the discussion that day. You must therefore take each CAR seriously enough that you could present and discuss the article to your peers. Because other teams will be similarly prepared to lead the discussion on your paper, you can expect your peers to participate actively in the discussion and, potentially, to pose some difficult questions.

CAR Edits: During each peer teaching session, the teams working on same article will swap CARs and edit their peers' work for clarity, composition, and content. Teams should edit their assigned CAR collaboratively. The edited, marked up CAR will be due at the beginning of the following class and will be graded based on the quality of the feedback.

Midterm Exam: This exam will cover the survey and application articles we have studied and discussed, including both specific and general aspects as well as 'meta-lessons' from these articles. While the focus of exam questions will not be topical *per se* and will not require that you memorize results, the questions will test how well you are able to read and interpret econometric results *in the context of a specific research question*.

Final Project: You will work with a partner to replicate an assigned paper as your final project. This project will require polished responses to specific questions about the replication exercise, in addition to annotated estimation results. The project will be assigned mid-quarter during a dedicated econometrics workshop and will be due at the end of the quarter.

Grading: Final grades in ARE 258 (and 298) will be computed using the following weights:

Brief Article Reactions (4 sets of 2 articles)	15%
Collaborative Article Reviews (4 articles)	40%
CAR Edits (4)	10%
Midterm Exam	15%
Workshop Participation & Final Project	20%

Econometrics Workshop: A functional research skill set in applied economics requires applied econometric fluency, which metaphorically stands on three cognitive “legs”: (1) an understanding of econometrics, (2) an appreciation for when and why to use econometrics relative to (or in conjunction with) other methodological approaches, and (3) a capacity to use econometrics to actually analyze data. Even with sound and solid first and second legs, a frail or missing third leg severely undermines one’s ability to do applied research. In practice, building a strong third leg begins with building familiarity and fluency with an econometric software package. We will use STATA, arguably the current front runner in economics today.

Throughout the quarter, Kassahun will conduct five workshop sessions. In four of these workshops, you will replicate the empirical analysis of one of the application articles we cover in each module. In the fifth session, you will be introduced to a new dataset and start on a specific empirical project that you will subsequently complete with a partner. You are required to attend and actively participate in these workshop sessions.

Readings: Required readings are listed in the schedule below; most are available on the course website. Additional readings and references may be added throughout the quarter.

Website: I have created a SmartSite for this course. Login at <https://smartsite.ucdavis.edu>. If you are enrolled in the course, you are automatically enrolled as a user for the ARE 258 course website. This site contains readings for the course, as well as other information. We may use other SmartSite features as the course progresses.

Tentative Course Schedule & Readings:

Subject to change – check the website for most current version.

DATE	TOPICS & REQUIRED READING	
T Apr 2 R Apr 4	Overview of Course & Introduction to Research in Applied Economics Krugman 1993; Varian 1997; Leamer 2007@ / Cohen 1994@; McCloskey and Ziliak 1996@; Kennedy 2002 / Intriligator 1983, Section 1-5; Angrist and Pischke 2009, Ch.1-2	
T Apr 9 R Apr 11	Consumer Demand	<u>Survey Articles:</u> Deaton and Muellbauer 1980, Ch.3 / Julian Alston, ARE 231 Notes Deaton 1986, Sections 0, 1, 2.1, 2.4, 3.3, 7.3
T Apr 16 R Apr 18		<u>Application Articles:</u> Moschini and Meilke 1989; Huang and Lin 2000; Kanter et al. 2009
T Apr 23*‡ R Apr 25		
T Apr 30 R May 2	Production & Supply	<u>Survey Articles:</u> Cassels 1933; Schultz 1956 / Just and Pope 2001, Sections 1, 2, 7; Mundlak 2001, Sections 1, 2, 5, 7 / Chavas 2001 Sections 1-3
T May 7‡ R May 9*		<u>Application Articles:</u> Taylor et al. 1986; Craig et al. 1997; Duflo et al. 2011
Take Home MidTerm Exam		
T May 14‡ R May 16	Innovation & Technology	<u>Survey Articles:</u> Evenson 2001; Sunding and Zilberman 2001
T May 21 R May 23*		<u>Application Articles:</u> Qaim and De Janvry 2003; Jin et al. 2005; Chellaraj et al. 2008
T May 28‡ R May 30	Market Structure & Integration	<u>Survey Articles:</u> Barrett 1996; Barrett 2001; Fackler and Goodwin 2001 Sections 1, 2, 4.1, 5; Sexton and Lavoie 2001 Sections 1-3, 7-9
T Jun 4‡ R Jun 6*		<u>Application Articles:</u> Huang and Sexton 1996; Jensen 2007; Van Campenhout 2007
R Jun 13	Final Project Due	

* *Peer teaching session in class*

‡ *Econometrics Workshop, Tuesday 7-9pm*

@ *Optional reading*

References

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