

**ECON 6896 RESEARCH METHODS (5 units)**  
**Tuesday 6:00 - 10:00 PM, Room: VBT 134**  
Updated: May 1, 2015

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**Instructor:** Esra Kose

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Office Hours: Tuesday 4pm - 6pm and by appointment.

**Course Description:** Research methodologies, data analysis, and report writing. Provides students with analytic and research tools to increase their capacity to pose, answer, and critically evaluate research questions. Culminates in research project that synthesizes research methods, statistical analysis, and reporting of empirical results. **Prerequisites:** ECON 6101, 6105, 6400, 6511 and at least one graduate seminar in Economics and co-enrollment or completion of ECON 6102.

This class will emphasize hands-on experience with STATA (any other computational statistics package) and key data sources that will likely be useful in your professional work. You can purchase your own license for STATA/IC 13 (not small STATA) through <http://www.stata.com/order/new/edu/gradplans/student-pricing/>.

**Student Learning Objectives:** Upon successful completion of the course a student will be able to:

- Understand the difference between an hypothesis and a problem statement.
- Determine whether an hypotheses or problem statement is testable.
- Define and operationalize a variable.
- Understand the relationship between a concept and variable.
- Understand the difference between causation and correlation.
- Understand the difference between a population and sample.
- Understand the elements of a good research design, its purpose, and its relationship to the hypothesis/problem statement.
- Understand the difference between random assignment and random sampling.
- Distinguish between experimental and non-experimental designs.
- Understand validity and sampling concerns in research design.
- Distinguish between primary and secondary data and understand the advantages and disadvantages of each.
- Understand the alternative levels of measurement available for data collection and select the appropriate level.
- Prepare data for analysis.
- Know how to report research results.
- Critically evaluate research proposed or performed by others.
- Understand ethical issues arise in conducting economic research and strategies for resolving them.

**Course Objectives:** This course provides you with analytic and research tools to increase your capacity to pose, answer, and critically evaluate research questions. Culminates in research project that synthesizes research methods, statistical analysis, and reporting of empirical results. This course will provide an opportunity for you to produce original empirical research and develop skills in written and graphical communication. You will have an opportunity to use empirical methods to examine real life economics related questions. By the end of this course, you should be able to pose an empirically testable research question, conduct your own basic empirical research on this question, and you should be able to read and comprehend some of the empirical literature in field related journals.

**Books:** First 2 books in the list below are mandatory for this class. Mostly Harmless Econometrics is advanced for Ph.D. level, I included in the list for those of you who are more deeply interested applied economics research. Introductory Econometrics is in the list for reference (to refresh our minds on the econometrics front).

1. Required: Angrist, J.D., and J.S. Pischke. (2014) *Mastering ‘Metrics: The Path from Cause to Effect*. Princeton University Press. For replication, data and codes locate <http://masteringmetrics.com/resources/>
2. Required: Leek, J. (2015) *The Elements of Data Analytic Style*, download (free or donate 10 dollars) from: <https://leanpub.com/datastyle>
3. Recommended: Angrist, J.D., and J.S. Pischke. (2009) *Mostly Harmless Econometrics: An Empiricists Companion*. Princeton University Press. For replication, data and codes locate <http://economics.mit.edu/faculty/angrist/data1/mhe>
4. Recommended: Wooldridge, J.M. (2009) *Introductory Econometrics (4th edition)*. South-Western Cengage Learning.

**Attendance and Participation:** Students are required to attend lectures, and active participation is encouraged. Faithful attendance will be reflected in grading.

**Term Paper:** Two people will be randomly assigned to a group. Each group will write one term paper (15-20 pages) addressing a well-formulated research question. Every group member must score the other group member’s performance on the term paper. The paper should be formatted as:

- 12-point Times New Roman or Arial
- 1-inch margins
- Double spacing

During the lecture, I will provide several resources to help you write your paper.

**Grade Distribution:**

Class participation - discussions	18%
Presentations (5 presentations - 2% each)	10%
Problem Sets	5%
Literature Review	2%
First draft of the paper	10%
Second draft of the paper	10%
Final Presentation	10%
Final Paper	35%

### Letter Grade Distribution:

>= 95	A	74 - 76	C
90 - 94	A-	70 - 73	C-
87 - 89	B+	67 - 69	D+
84 - 86	B	60 - 66	D
80 - 83	B-	<= 59	F
77 - 79	C+		

### Course Policies:

- **Grades**

- Grades in the **C** range represent performance that **meets expectations**; Grades in the **B** range represent performance that is **substantially better** than the expectations; Grades in the **A** range represent work that is **excellent**.

- **Incomplete Grades**

- Grades of “Incomplete” are given only in cases of verified emergencies and if over 50% of the course work has been completed with a grade of C or better.

- **Academic Dishonesty**

- Cases of academic dishonesty will result in a grade of “F” in the class and an Academic Dishonesty Report placed in the student’s academic life.
- By enrolling in this class the student agrees to uphold the standards of academic integrity described in the catalog at <http://www.csueastbay.edu/ecat/current/i-120grading.html#section12>.
- Also, see more detailed information in a written document posted on Blackboard, under the Course Syllabus folder, called “MA Academic Honesty”.

- **Disability Accommodation**

- If you have a documented disability and wish to discuss academic accommodations, or if you would need assistance in the event of an emergency evacuation, please contact me as soon as possible. Students with disabilities needing accommodation should speak with the Accessibility Services.

- **Emergency Information**

- Information on what to do in an emergency situation (earthquake, electrical outage, fire, extreme heat, severe storm, hazardous materials, terrorist attack) may be found at: [http://www.aba.csueastbay.edu/EHS/emergency\\_mgmt.htm](http://www.aba.csueastbay.edu/EHS/emergency_mgmt.htm). Please be familiar with these procedures. Information on this page is updated as required. Please review the information on a regular basis.

## Tentative Course Outline:

Week(s)	Content
Week 0 (March 31)	<ul style="list-style-type: none"> <li>• Suggestions and guidelines on how to write an empirical paper:               <ul style="list-style-type: none"> <li><a href="http://www.econ.ucla.edu/alleras/teaching/index.html">http://www.econ.ucla.edu/alleras/teaching/index.html</a></li> <li><a href="http://eml.berkeley.edu/~webfac/eichengreen/e191_sp12/powers_econ191_1-17-12.pdf">http://eml.berkeley.edu/~webfac/eichengreen/e191_sp12/powers_econ191_1-17-12.pdf</a></li> <li><a href="http://eml.berkeley.edu/~webfac/eichengreen/e191_fall12/guidelines_econ191_8-29-12.pdf">http://eml.berkeley.edu/~webfac/eichengreen/e191_fall12/guidelines_econ191_8-29-12.pdf</a></li> </ul> </li> <li>Amy Finkelstein has written two Powerpoint guides on how to conduct empirical economics research, as well as lessons learned at:               <ul style="list-style-type: none"> <li><a href="http://econ.lse.ac.uk/staff/spischke/phds/Amy%20Finkelstein%20IAP%20talk%202006.ppt">http://econ.lse.ac.uk/staff/spischke/phds/Amy%20Finkelstein%20IAP%20talk%202006.ppt</a></li> <li><a href="http://econ.lse.ac.uk/staff/spischke/phds/Amy%20Finkelstein%20IAP%20talk%202007.ppt">http://econ.lse.ac.uk/staff/spischke/phds/Amy%20Finkelstein%20IAP%20talk%202007.ppt</a></li> </ul> </li> <li>Nick Shunda has seminar series on Writing in Economics: <a href="http://web.uconn.edu/langlois/courses/shunda.html">http://web.uconn.edu/langlois/courses/shunda.html</a></li> <li>Some examples of empirical questions: <a href="http://www.csus.edu/indiv/h/howellj/econ145_s2009/handouts/topicideas.pdf">http://www.csus.edu/indiv/h/howellj/econ145_s2009/handouts/topicideas.pdf</a></li> <li>• <b>Readings:</b> <ol style="list-style-type: none"> <li>1. Required: Read the guidelines that are provided in the links above.</li> <li>2. Required: Mastering ‘Metrics, Introduction and Chapter 1</li> </ol> </li> <li>• <b>Assignment:</b> <ol style="list-style-type: none"> <li>1. Write a half page to a page about yourself, graduate classes you have taken, your statistics/econometrics background (if you have used any statistics package – STATA, R, Eviews, Gretl...–), your research interest, what you want to do after you graduate, and what you want to get out of this class. Email it to me by April 5th, Sunday.</li> <li>2. Push yourself to come up with research questions. No submission for this assignment.</li> </ol> </li> </ul>
Week 1 (April 7)	<ul style="list-style-type: none"> <li>• Introduction to research methods.</li> <li>• Finding a research topic. Forming a question. How to motivate your topic. Finding the right data.</li> <li>• Causality vs. Correlations.</li> <li>• Making sense with regression analysis. Understanding of non-experimental designs and problems associated with it.</li> <li>• The most commonly used toolkits 1: OLS</li> <li>• <b>Readings:</b> <ol style="list-style-type: none"> <li>1. Required: Mastering ‘Metrics, Chapter 2</li> <li>2. Recommended: Mostly Harmless Econometrics Chapter 1 - 2</li> </ol> </li> <li>• <b>Assignment:</b> Each group is supposed to come up with two research questions and potential data sets to be used to examine your questions (one proposal each member). Proposals (one page) are emailed to the assigned discussant and to the instructor 2 days in advance (April 12th). For each group, one of the two proposals will be approved by the instructor to move forward.</li> </ul>

Week 2 (April 14)	<ul style="list-style-type: none"> <li>• Conducting a literature review.</li> <li>• The most commonly used toolkits 2: Difference-in-Differences</li> <li>• <b>Readings:</b> <ol style="list-style-type: none"> <li>1. Required: Mastering ‘Metrics, Chapter 5</li> <li>2. Recommended: Writing a literature review reference: <a href="http://web2.uconn.edu/ciom/Shunda/LitRev.pdf">http://web2.uconn.edu/ciom/Shunda/LitRev.pdf</a></li> </ol> </li> <li>• <b>Assignment:</b> <ol style="list-style-type: none"> <li>1. Research proposals are presented and discussed by other students.</li> <li>2. Problem set 1 is due this week. Turn in (email or printed copy) before the class starts April 14th, 2015.</li> </ol> </li> </ul>
Week 3 (April 21)	<ul style="list-style-type: none"> <li>• How to present a research paper</li> <li>• General overview of data analysis</li> <li>• How to write data, empirical methods, and results sections</li> <li>• <b>Readings:</b> <ol style="list-style-type: none"> <li>1. Required: The Elements of Data Analytic Style: Chapters 1, 9-12</li> <li>2. Recommended: Preparing slides for a presentation. For reference: <a href="http://faculty.chicagobooth.edu/jesse.shapiro/research/applied_micro_slides.pdf">http://faculty.chicagobooth.edu/jesse.shapiro/research/applied_micro_slides.pdf</a>.</li> <li>3. Recommended Papers: <ul style="list-style-type: none"> <li>– OLS: Krueger, A.B. (1993) <i>How Computers Have Changed the Wage Structure: Evidence from Microdata, 1984-1989</i>. QJE.</li> <li>– Diff-in-Diff: Eissa, N. and Leibman, J.B. (1996) <i>Labor Supply Response to the Earned Income Tax Credit</i>. QJE.</li> <li>– IV: Angrist, J. and Krueger, A.B. (1991) <i>Does Compulsory School Attendance Affect Schooling and Earnings?</i>. QJE.</li> </ul> </li> </ol> </li> <li>• <b>Assignment:</b> <ol style="list-style-type: none"> <li>1. Literature review drafts (5-6 papers/ one to two pages) are emailed to the instructor 2 days in advance (April 19th).</li> <li>2. Problem set 2 is due this week. Turn in (email or printed copy) before the class starts April 21th, 2015.</li> </ol> </li> </ul>
Week 4 (April 28)	<ul style="list-style-type: none"> <li>• <b>Assignment:</b> <ol style="list-style-type: none"> <li>1. Present an article of choice that is related to your topic (would potentially be included in the literature review). Discuss the article presented by another student. You need to email the chosen article to the assigned discussant and me 2 days in advance.</li> </ol> </li> </ul>
Week 5 (May 5)	<ul style="list-style-type: none"> <li>• First draft is presented and then discussed by another student.</li> <li>• <b>Assignment:</b> First drafts (min. 6 pages) are emailed to the assigned discussant and me 2 days in advance (March 3rd). First draft should have an introduction, a literature review, a partial description of the data, the economic model and of the research hypothesis, and a list of references.</li> </ul>
Week 6 (May 12)	<ul style="list-style-type: none"> <li>• <b>Assignment:</b> Present an article of choice that is related to your topic (would potentially be included in the literature review). Discuss the article presented by another student. You need to email the chosen article to the assigned discussant and me 2 days in advance.</li> </ul>

Week 7 (May 19)	<ul style="list-style-type: none"> <li>• Second draft is presented and discussed by another student.</li> <li>• <b>Assignment:</b> Second drafts (min. 10 pages) are sent by email to the assigned discussant and me 2 days in advance. Second draft will be built on the first draft, the feedback received, and have a complete description of the data, the econometric model and the research hypotheses, and include preliminary results.</li> </ul>
Week 8 (May 26)	<ul style="list-style-type: none"> <li>• How to write an abstract.</li> <li>• Mock presentations and feedback.</li> </ul>
Week 9 (June 2)	<ul style="list-style-type: none"> <li>• Final Presentations</li> <li>• <b>Note:</b> Final paper is due Friday, June 12 at noon.</li> <li>• <b>Note:</b> Every group member must email me the score of the other group member's performance after submitting the final paper (0-100).</li> </ul>