

## **Economics 300: Honors Seminar in Economics Academic Year 2014-2015**

Professor Jere R. Behrman

e-mail: [jbehrman@econ.upenn.edu](mailto:jbehrman@econ.upenn.edu) [Start subject line with "Ec 300" on all e-mails to me]

Office Hours in McNeil 229 by Appointment: Please send me e-mail with several options.

Class meetings: Generally 2-5 pm on Mondays in McNeil 110 (individual meetings in McNeil 229).

**General Information:** This course is a seminar in which advanced undergraduates learn how to do research by reading and discussing recent research in economics and by applying research methods in writing a senior honors essay. This is a single course that meets for two semesters and counts as two course units. ECON 300 counts as only one course toward the major, and may count toward one of the four 200-level course requirements. Consequently, honors majors have eleven economics course units. (The Economics GPA is based on economics courses.) Enrollment in ECON 300 is only possible with the permission of the instructor. As a guideline for admission, students should have taken ECON 101, 102, 103, 104 (ECON 104 may be taken concurrently in the Fall), and two 200-level economics courses with an Economics GPA of at least 3.5. Enrollment in the Honors Seminar is during the Fall semester only. Credit is awarded only upon completion of both semesters of ECON 300. Students who do not enroll in and complete the second semester of the Honors Seminar do not receive credit for the first semester. Grades are based on the quality of the honors paper, on oral presentations and on classroom participation.

A senior honors essay is a major research paper, with the text approximately 20-30 single-spaced pages long with tables and figures and with citations to the literature in a standard reference style, which makes some original contribution either to economic theory or to the accumulation of empirical knowledge. The paper may, for example, propose and implement an empirical test for an existing economic hypothesis or it may offer a new explanation for some economic phenomenon. The paper topic is chosen by you with guidance from me in choosing one that is manageable. You will be assigned a professor in the economics department to serve as an advisor in addition to me, most likely one of the members of the Honors Thesis Committee: Ken Burdett, Luca Bossi, Jesus Fernandez-Villaverde, Dirk Krueger (ex officio and chair), Steve Matthews, Guido Menzio, Andy Postlewaite, Rebecca Stein.

To receive honors in the economics major, you need grades of B- or better on the essay and in the economics seminar itself. You also need a GPA of 3.5 in your economics courses.

**Requirements:** You will be expected to complete assignments on time (see below) and to participate in class discussions. You will be expected to meet deadlines in submitting thesis outlines and drafts, to make oral comments on presentations of peers in the class (particularly as a Designated Peer Commentator), to make oral presentations to other members of the seminar about your work in progress and to give a final presentation of your completed paper. You will also be asked to serve as a Designated Peer Commentator on presentations of two other classmates.

**Grading:** Your grade is determined by the quality of your honors essay, the quality of your presentations and your participation in the class. The essay is graded by me in consultation with your advisor. Approximately 80% of your grade will be based on the essay and 20% on class presentations and participation in class including your role as a Designated Peer Commentator on two classmates' presentations (see below).

**Types of Essays:** In principle, there are two options. But almost all, perhaps all, students will select the first option because, given their backgrounds, the second option is likely to be too challenging.

1. *An empirical essay:* For this type of essay, you develop an empirical question, either one that you take from the literature or one that you develop, and you use data to provide evidence about it. To answer your question of interest, you use economic models that help identify the important variables and how they interact. Data are analyzed using rigorous statistical methods, which means that you may have to learn on your own or through other mechanisms, if you do not know already, how to use some standard software for statistical analysis (e.g., Stata, EVIEWS, R). The data that you analyze can come from

published sources or you can gather them yourself. Published data may be available on-line or you may have to enter them yourself. Locating interesting data that can be used to investigate your question is a major component of your project, and you should not delay in attempting to find such data. For some possible data (e.g. if you collect primary data), Human Subjects and Institutional Review Board (IRB) approvals may be necessary (but not generally for de-identified public-use data that you can download from the web).

2. *A theoretical essay:* This type of essay develops an economic model to better understand some economic phenomenon. A theoretical essay should (1) motivate the need for the model and (2) discuss how your model differs from and improves on others in the literature as well as discuss its limitations. Naturally, any model you propose will be more convincing if you can also present some empirical support for it. You may use previously published tables or figures to support your model as long as they are cited correctly.

### **Steps in Writing the Essay:**

1. Search for a Topic: Find a topic that is of interest to you, well-suited to your skills, and tractable within the time constraints of Economics 300 and your other commitments. You probably have many defuse interests, but it is important that you focus for this course on a well-defined and tractable topic.

2. Review Literature: Do extensive reading in your area of interest and take notes on your readings. A section of your final thesis will be devoted to a discussion of the existing literature in your area and how your research contributes to it. A good place to start is with an intermediate-level economics textbook and with economics journals. Also, look through reading lists and class notes from your previous courses. Try to make your topic as focused as possible and plan your research strategy.

3. Locate Data. If you are doing an empirical study, find out what data sources are available to you. You may need to revise your topic because of data availability. Collecting your own data is an option, although you will need to carefully design the method by which you collect the data and will need Human Subjects and IRB approvals. For empirical work, you will also need to choose and to learn how to use the software for your data analysis. Empirical research should be carried out in a way that someone else could take the same data and replicate your results, so it is important to document how variables are created, etc. (this is usually done in a data appendix to the paper). Examine your data carefully to be sure that there are not peculiar variable values that probably reflect some data errors and, if ignored, could confound your analysis. Document decisions you make in analyzing your data (for example, how many observations are deleted because of missing values or do you impute missing values?).

4. Develop Outline: When you have a good idea of the main points you plan to make in the paper, write an outline of how they will be organized and try a rough draft of the introduction. As you learn more about your topic, refine your outline.

5. Write Paper Components: A good way to approach the writing of a large research paper is to view it as a collection of smaller 3-5 page essays (introduction, literature review, economic model, data sources and basic statistics, estimates, conclusion) linked together. Work towards completing each of these smaller essays one at a time and then tie them all together into one paper. Keep in mind that your first draft merely gets your ideas on paper and will be revised. Your paper probably will go through many revisions. When you have finished presenting your empirical findings and/or economic models, draw thoughtful and honest conclusions from your work. The model you develop will have limitations and you can suggest useful extensions to your research. Your empirical results may have turned out differently from your expectations or may seem counterintuitive. Whenever possible, turn adversity into an advantage by learning the most you can from your findings. Discuss empirical results that are puzzling or contradict your economic model as well as those that support it. Important advances in economics have come about in trying to explain results that may at first seem puzzling.

**Assignments Related to Writing the Essay (Tentative Dates in Brackets, Which May Have to be Adjusted Depending in part on Factors such as Number of Students in the Class)**

Fall Semester:

1. Oral presentation of a previous senior honors thesis (Oral Presentation Assignment 1 below) [15 and 22 September; send slides as e-mail attachment to me at least 18 hours in advance]. Students who are enrolled in the class will be invited to a dropbox folder that contains, inter alia, good papers from previous years. Pick a paper that you would like to present and send me an e-mail asking me to confirm that some other classmate has not already selected it. (There are hard copies of other papers from past years available that you can see if you wish; please send me an e-mail if you are interested.)
2. Choose a topic [individual discussions 29 September; send one paragraph with idea and how you would approach it by 9:00 am on 29 September]
3. Tentative bibliography [submit to me as e-mail attachment by 9:00 am on 20 October]
4. Oral presentation of a paper in the literature on your topic (Oral Presentation Assignment 2 below) [27 October and 3 November; send slides as e-mail attachment to me at least 18 hours in advance]
5. Written thesis proposal (objective (question, hypothesis), model, and research plan, including data sources and contemplated analysis) – maximum of four pages (send to me and to your Designated Peer Commentator 1 by 5:00 pm on 19 November)
6. Oral thesis proposal (Oral Presentation Assignment 3 below) [24 November and 1 December; send slides as e-mail attachment to me and to your Designated Peer Commentator 1 at least 18 hours in advance]
7. Complete literature review – approximately 10 pages [send me by e-mail attachment by 6:00 pm on 19 December]

Spring Semester:

1. Oral presentation on work in progress (Oral Presentation Assignment 4 below) [26 January and 2 February; send slides as e-mail attachment to me and to your Designated Peer Commentator 1 at least 18 hours in advance]
2. Send me draft of introduction and outline [send to me and your Designated Peer Commentator 2 as e-mail attachment by 6:00 pm on 16 February]
3. Oral presentation on work in progress (Oral Presentation Assignment 5 below) [March 16 and 23; send slides as e-mail attachment to me and to your Designated Peer Commentator 2 at least 18 hours in advance]
4. Final oral presentation (Oral Presentation Assignment 5 below) [April 20 and 27; send slides as e-mail attachment to me and to your Designated Peer Commentator 2 at least 18 hours in advance]
5. Final draft [Send me as e-mail attachment by 6:00 pm 6 May; also leave under my door hard copy with signed academic integrity statement and confirmation of agreement to make your paper available to future students on cover page or send me by e-mail scanned version of this document by 6:00 pm on 6 May]

Notes:

- 1) Oral presentations generally will span two Monday class sessions (perhaps more, depending on enrollment). I will solicit from the class members which students want to go in the first session in order to advance more rapidly, which students prefer the second session and which students are indifferent. If more students want to go in one session than we can accommodate, I will randomly pick from those students who are interested in that session.
- 2) I will assign each student to be a Designated Peer Commentator 1 on another student's presentations for Oral Presentation Assignments 3-4 and a Designated Peer Commentator 2 on yet another student's presentations for Oral Presentation Assignments 5-6. This will enable each

student to benefit from observations of peers and assure that each student is knowledgeable about and engaged in what peer students are doing.

- 3) Full class meetings are not scheduled for every Monday 2-5. Individual meetings will be scheduled from time to time on days on which there are not full class meetings.
- 4) You will be asked to confirm in writing on the cover sheet of your final paper, as noted above, that your paper can be used for future classes to illustrate what past students in the course have done (including for Oral Presentation Assignment 1 in future classes).
- 5) The deadlines are deadlines, not fuzzy “more-or-less” targets. You are welcome to submit before the deadlines. Late submissions either will receive no feedback or, if they are graded, be penalized 5% per 24 hours or portion thereof they are late. Please be respectful of your classmates, particularly your Designated Peer Commentators, by honoring the deadlines.

**Academic Integrity:** Academic integrity is a very important part of student life, and the Department of Economics takes it seriously. The department reserves the right to undertake procedures that would catch breaches of academic integrity, should any arise. Students who are suspected of committing infractions will be reported to the Office of Student Conduct. If a student is found in violation of academic integrity, it is at the professor's discretion to give the student a failing grade for the assignment and the course. You will be asked to confirm in writing that you have followed the strictures of academic integrity in preparing your own paper and in citing appropriately all sources that you have used on the cover page of your final submission.

### **Oral Presentation Assignment 1:**

Make a 15-minute oral presentation of a previous senior honors thesis in which you answer the following questions:

1. What is the major question or issue addressed in the thesis?
2. What economic theory or principles were used to address the issue?
3. What data were used? What was the source of the data?
4. What was the empirical approach or estimation method employed? Examples might be comparing means, analysis of variance, regression analysis.
5. What were the major findings?

The oral presentation should have one slide for each of the above five questions.

### **Oral Presentation Assignment 2:**

Choose one paper you have read, preferably published in an economics journal, related to your topic and summarize it in a 15-minute oral presentation by answering the following questions.

1. What is the major question or issue addressed in the paper?
2. What economic theory or principles were used to address the issue?
3. What data were used? What was the source of the data?
4. What was the empirical approach or estimation method employed? Examples might be comparing means, analysis of variance, regression analysis.
5. What were the major findings?
6. How is this paper related to the topic of your senior thesis.

### **Oral Presentation Assignment 3: Thesis proposal**

Give a 15-minute presentation of your proposed thesis including the following:

1. What is the major question or issue you plan on addressing?  
What is the motivation for the question?
2. What economic theory or principles will you use to address the issue?
3. What data source are you planning to use?  
If possible, present some preliminary descriptive statistics (means, correlations, graphs) either from your data or from the literature that illustrates the issue.

4. Describe briefly the type of analysis you plan on doing?

Your Designated Peer Commentator 1 will give 3-5 minute discussion.

**Oral Presentation Assignment 4: Thesis work in progress**

Give a 15-minute presentation on your thesis work in progress: how have you advanced, what are preliminary results, what puzzles or problems have you encountered, what is next.

Your Designated Peer Commentator 1 will give 3-5 minute discussion.

**Oral Presentation Assignment 5: Thesis work in progress**

Give a 15-minute presentation on your thesis work in progress: how have you advanced, what are preliminary results, what puzzles or problems have you encountered, what is next.

Your Designated Peer Commentator 2 will give 3-5 minute discussion.

**Oral Presentation Assignment 6: Final oral thesis presentation**

Give a 20-minute presentation on your thesis covering your motivation (question, hypothesis), literature review, model, data, results and conclusion.

Your Designated Peer Commentator 2 will give 3-5 minute discussion.