Purpose and Objectives of the Course

This can be best thought of as an empirical research methods and writing course. It is designed to help you integrate and further develop many of the skills you have already learned in your previous economics courses (including but not limited to statistical techniques learned in Econ 311 and 312) and to communicate what you have learned in written form. My hope is for you to be able to gain some important additional research and writing skills that will be helpful in your professional career following graduation. Much of your course work will involve collecting, processing, analyzing, and interpreting economic information, quantitative data in particular, and writing up what you have learned in a series of written exercises. The primary objective is to learn what it takes to conduct economic research, both qualitatively and quantitatively, and to communicate your research findings in written reports that are standard in the discipline.

Required Text

*Doing Economics: A Guide to Understanding and Carrying Out Economic Research*

Course Prerequisites

The Economics Department has recently revised the prerequisites for this course to be: Econ 301, Econ 302, Econ 311, and Econ 312. You now must have completed Econ 312 to enroll in Econ 690.

Course Structure & Projects

The course is organized around learning the specific skills necessary to conduct research on your own. As such, I will lecture only occasionally, and then usually to explain some important aspect of an assignment or to demonstrate a particular skill. There is a core set of steps and procedures common to all quantitative research projects. We will learn these steps and procedures in two stages:

Project One is a directed assignment where everyone works on a pre-specified research question where I give you specific guidance on how to go about completing the assignment. We will all be using the same micro-data source, and we will spend quite a bit of class time learning how to access and manipulate large sets of individual data. We will also be spending class time going over and explaining what goes into a written research report. The main goal of this first project is to learn the how to apply the standard steps and procedures common to all empirical research projects.

Project Two requires that you choose your own research topic and research question. You will also be responsible for finding, processing, and analyzing your own data. The main goal of this second project is for you to learn how to independently choose your research question and to complete a thorough empirical investigation of it, building on the skills you have developed from Project One.

Attendance

Ten percent of your course grade will be based on class attendance. I allow three missed classes throughout the semester for any reason (you do not need to provide me with an excuse). Beyond that, you will be docked points for each missed class. I will not excuse any additional absences beyond the allowed three for any reason.

Assignments

There are 8 specific assignments due throughout the semester. Each assignment is designed to help you develop one or more of the research skills necessary for completing the projects. Much of the work on these assignments will be incorporated into the final draft of each report. I will return each assignment with extensive feedback, comments and suggestions for improvement that can be useful to you in making further revisions in your work. In the feedback, I will identify and evaluate specific strengths and weaknesses in your
written work, allowing us to gauge your progress throughout the course of the semester.

The following schedule gives the approximate page length, due date, and points for each assignment. The Final Draft is worth 100 points on the First Project and 200 points on the Second Project. All of the other assignments are worth only a nominal number of points, yet it is important to complete and submit them on time to receive these points. I expect each of these assignments to be typed, submitted on time in class, and in hard copy (no e-mail attachments please). Work submitted late will be penalized (5 points for each day late) and will usually be returned without comments.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Approximate Page Length</th>
<th>Due Date</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1: Intro, Lit Review, Theory, &amp; Empirical Model</td>
<td>5 pages</td>
<td>10 Feb</td>
<td>25</td>
</tr>
<tr>
<td>Project 1: Data Description &amp; Empirical Analysis</td>
<td>8 pages</td>
<td>24 Feb</td>
<td>25</td>
</tr>
<tr>
<td>Project 1: First Draft of Entire Report</td>
<td>15 pages</td>
<td>10 Mar</td>
<td>50</td>
</tr>
<tr>
<td>Project 1: Final Draft of Entire Report</td>
<td>15 pages</td>
<td>24 Mar</td>
<td>100</td>
</tr>
<tr>
<td>Project 2: Intro, Lit Review, Theory, &amp; Empirical Model</td>
<td>5 pages</td>
<td>7 April</td>
<td>25</td>
</tr>
<tr>
<td>Project 2: Data Description &amp; Empirical Analysis</td>
<td>8 pages</td>
<td>21 April</td>
<td>25</td>
</tr>
<tr>
<td>Project 2: First Draft</td>
<td>15 pages</td>
<td>5 May</td>
<td>50</td>
</tr>
<tr>
<td>Project 2: Final Draft</td>
<td>15 pages</td>
<td>19 May</td>
<td>150</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>450</td>
</tr>
</tbody>
</table>

**Course Evaluation**

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>450</td>
</tr>
<tr>
<td>Attendance (100 points minus 5 for each missed class beyond the third)</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
</tr>
</tbody>
</table>

**Point Range for Course Letter Grade**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Range</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>465 – 500</td>
<td>(93 –100%)</td>
</tr>
<tr>
<td>A -</td>
<td>450 – 464</td>
<td>(90 –93%)</td>
</tr>
<tr>
<td>B +</td>
<td>435 – 449</td>
<td>(87 – 89%)</td>
</tr>
<tr>
<td>B</td>
<td>415 – 434</td>
<td>(83 – 86%)</td>
</tr>
<tr>
<td>B -</td>
<td>400 – 414</td>
<td>(80 – 82%)</td>
</tr>
<tr>
<td>C +</td>
<td>385 – 399</td>
<td>(77 – 79%)</td>
</tr>
<tr>
<td>C</td>
<td>under 300</td>
<td>(under 60%)</td>
</tr>
<tr>
<td>C -</td>
<td>350 – 364</td>
<td>(73 – 76%)</td>
</tr>
<tr>
<td>D +</td>
<td>335 – 349</td>
<td>(67 – 69%)</td>
</tr>
<tr>
<td>D</td>
<td>315 – 334</td>
<td>(63 – 66%)</td>
</tr>
<tr>
<td>D -</td>
<td>300 – 314</td>
<td>(60 – 62%)</td>
</tr>
</tbody>
</table>

**Assignment 1**

**Due:** Wednesday, 10 February in class

**What:**
1. Reference List citing five articles
2. Answers to Table 6.1 questions
3. First four sections of report

**Research Question for Project 1:**

“Do workers with more education earn more in the labor market than workers with less education?”

**Instructions for assignment:**

1. Read Chapters 1 through 7 of the text (pages 1 – 123).
2. Read the following book chapter:
   An online pdf copy can be found at: [http://econ.arts.ubc.ca/lemieux/papers/mincer.pdf](http://econ.arts.ubc.ca/lemieux/papers/mincer.pdf)
3. Use Lemieux’s reference list and EconLit, to identify and read four additional scholarly articles concerned with the relationship between education and earnings. You can use EconLit to search for
other articles on this topic that are not included in Lemieux’s reference list.

4. On a single page, list your five articles (Lemieux’s and four others) using the Author-Date (sometimes called Chicago Style) reference citation system as described on page 47 of the text. For additional information, google “author date citation” and click on the second link from the Harvard University Press.

Follow these guidelines for all reference citations in this class.

5. Choose two of the four articles you found (not Lemieux’s) and, in a page or two, answer the seven questions listed in Table 6.1 (page 99). See the chapter for examples of how to answer these questions.

6. Read Chapter 12 (pages 231 – 240 only).

7. Write a five page draft for the front end of your report with each the following sections:
   Introduction
   Literature Survey
   Theoretical Analysis
   Empirical Model

Assignment 2
Due: Wednesday, 24 February in class
What:
1. Table of summary statistics
2. Table of regression results
3. Two sections of report
   a. Description of data
   b. Discussion of regression results

Instructions:
1. Follow instructions given in classroom demonstration for the following:
   a. Extract and download CPS data from IPUMS site onto your flashdrive.
   b. Load the data into Stata using the do file provided by IPUMS.
   c. Save data as a Stata data.

You will need to choose the following variables to include in your extract:

Person Record
Core Demographic Variables
   AGE       Age
   SEX       Gender
   RACE      Race
   MARST     Marital status
Ethnicity/Nativity Variables
   NATIVITY  Foreign birthplace or parentage
   HISPAN    Hispanic origin
Education Variables
   EDUC99    Educational attainment, 1990 categories
Work Variables
   WKSWORK1  Weeks worked last year
   UHRSWORK  Usual hours worked per week last year
2. Process the CPS raw data using Stata commands to get it ready to analyze statistically following instructions given in classroom demonstration. The following data processing steps are necessary before going on to step 3:
   a. Drop observations for all non-wage earners.
   b. Generate a new variable for the natural log of earnings from \text{INCWAGE} variable.
   c. Generate a new variable for years of education using \text{EDUC99} variable.
   d. Generate a new variable for experience using \text{AGE} and \text{EDUC99} variables.
   e. Generate dummy variables for each of the following categories:
      1) Gender
      2) Race/Ethnicity
      3) Nativity
      4) Marital Status
      5) Union Status

3. Prepare table of summary statistics for all finished variables you will be using in your analysis. Prepare the table in Excel using summary statistics generated by the Stata \text{SUM} command. Follow instructions given in classroom demonstration for how to prepare your table in Excel.

4. Run regression(s) on your empirical model using Stata \text{REGRESS} command.

5. Prepare a table of regression results for your empirical model using Excel following instructions given in classroom demonstration.

6. Write a 3-6 page draft for the empirical analysis portion your report that includes the two following sections:
   a. Data Description
   b. Discussion of Empirical Results
   Follow guidelines presented in classroom demonstration for what to include in these sections and how to interpret and communicate your findings in written form.

\textbf{Assignment 3}
\textbf{Due:} Wednesday, 10 March in class
\textbf{What:}
\textbf{First Draft of Report for Project 1}

\textit{Instructions:}
1. Carefully read \textit{all} of Chapter 12 “Writing the Research Report” (pp. 231-250).

2. Revise Assignments 1 and 2, and incorporate feedback I have given to you on these assignments and any new material into a \textit{complete} first draft of your Project 1 report. Note that the first draft is not the same thing as a “rough” draft. You have already completed rough drafts with the first two assignments. This new draft (better thought of as a “next to final” draft) should be a fully realized attempt at communicating your research findings having completed the project. Your goal should be to do such a good job on this draft that you will have very little left to do in revising it for the final draft.

Your first draft should include \textit{all} of the following, and will be marked lower if any of them are not complete. Each of these sections is discussed in detail in Chapter 12.
   1. Title
   2. Abstract
   3. Introduction
   4. Literature Survey
Assignment 4  
Due:   Wednesday, 24 March in class  
What: 
  Final Draft of Report for Project 1  

Instructions:  
Revise Assignment 3, incorporating any feedback I’ve given you on it, into the final draft for Project 1.

Assignment 5  
Due:   Wednesday, 7 April in class  
What: 
  1. Your Research question for Project 2  
  2. First four sections of report  
  3. Reference List citing at least five articles  

Instructions  
1. Carefully re-read Chapter 2, paying particular attention to the section “Step 1: Developing an Effective Research Question” (pp. 14-19).  
2. Spend some time developing an interesting and effective research question for Project 2. Bear in mind the advice from Chapter 2. The best research questions draw on something you already know something about, perhaps from an earlier economics class or from your own reading and studying. Your research question should be quantitative and empirical in nature.  

   Once you have come up with a research questions you are interested in, a good test to see if it is viable is to see if it could be answered using the following framework: Will a change in one variable (the cause) lead to a change in some other variable (the effect)? This should be the bridge between the research question, and the list of variables you would need to use to empirically investigate your question. At this beginning stage, it is critical to give some thought and attention into whether there will be data to test your research hypothesis. Look into some of the data resources covered in Chapter 8 and see if any of them are promising. If you can’t measure it, you can’t empirically test it, and it won’t work as a research question. Therefore, you should start out with at least the possibility that data exists.  

   I will be working with each of you one-on-one in class to develop and hone your research topic and question. Make sure that you and I have discussed your ideas and that I have given you the green light before beginning the written work for this assignment.

4. Write a five-page draft for the front end of your report with each the following sections:  
   Introduction  
   Literature Survey  
   Theoretical Analysis  
   Empirical Model  
Follow guidelines presented in classroom demonstration for what to include in these sections and how to express your ideas in written form.

5. On a single page, list all of your references using the Author-Date (Chicago Style) reference citation.
system as described on page 47 of the text.

Assignment 6
Due: Wednesday, 21 April in class
What:
1. Table of summary statistics
2. Table of regression results
3. Two sections of report
   a. Description of data
   b. Discussion of regression results

Instructions:
1. Carefully re-read Chapters 8-11 (pp. 139-230) on locating, collecting, processing, and analyzing data.
2. Consult with me during class about data sources for specific variables you want to use for your empirical analysis.
3. Collect your data using one or several of the data collection techniques described in the classroom demonstration.
4. Prepare a table of summary statistics for all finished variables you will be using in your analysis. Prepare the table in Excel using summary statistics generated by the Stata SUM command. Follow instructions given in classroom demonstration for how to prepare your table in Excel.
5. Run regression(s) on your empirical model using Stata REGRESS command.
6. Prepare a table of regression results for your empirical model using Excel following instructions given in classroom demonstration.
7. Write a 5-page draft for the empirical analysis portion your report that includes the two following sections:
   a. Data Description
   b. Discussion of Empirical Results
Follow guidelines presented in classroom demonstration for what to include in these sections and how to interpret and communicate your findings in written form.

Assignment 7
Due: Wednesday, 5 May in class
What: First Draft of Report for Project 2

Instructions:
1. Carefully re-read Chapter 12 “Writing the Research Report” (pp. 231-250).
2. Revise Assignments 5 and 6 to incorporate feedback I have given to you on these assignments and add any new material into a complete first draft of your Project 2 report. This first draft should include all of the following, and will be marked lower if any of them are not complete. Each of these sections is discussed in detail in Chapter 12.
   1. Title
   2. Abstract
   3. Introduction
   4. Literature Survey
   5. Theoretical Analysis
   6. Empirical Model
   7. Data Description
   8. Discussion of Empirical Results
   9. Conclusion
   10. References
11. Appendix

Assignment 4
Due: Wednesday, 19 May in class
What:
    Final Draft of Report for Project 2

Instructions:
Revise Assignment 7, incorporating all the feedback I’ve given you on it, into the final draft for Project 1.