

# ECON 6901: Research Methods I

UNC Charlotte, Department of Economics, Spring 2018

## 1 Contact Information

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**Course Website:** Canvas

## 2 Important Dates & Times

**Class Meetings:** Mon 6:30 - 9:15 pm

Friday 207

### Tentative Due Dates & Deadlines

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1: Jan 14	Frist Class: Intro and Overview	
2: Jan 21	Martin Luther King Day	
3: Jan 28	<b>Assignment 1: Assigned Replication + Paper Selection</b>	Canvas Upload
4: Feb 4	Individual Replication Update	
5: Feb 11	<b>Assignment 2: Individual Replication</b>	Canvas Upload
6: Feb 18	<b>Assignment 3: Motivation + Lit Review</b>	Canvas Upload
7: Feb 25	<b>Assignment 4: Data, Summary Stats, Methods</b>	Canvas Upload
8: Mar 4	Spring Break	
9-10: Mar 11, 18	Preliminary Results Update	
11: Mar 25	<b>Assignment 5: Preliminary Results</b>	Canvas Upload
12-15: Apr 1, 8, 15, 22	Final Paper Update	
16: Apr 29	<b>Assignment 6: Final Paper</b>	Canvas upload

## 3 General Information

### 3.1 Course Description

ECON 6901. Research Methods for Economists I. (3G) Research programs in economics; problem identification; interpretation of statistical results, bibliographic search, data sources and collection, selection of statistical technique, preparation of reports and proposals.

### 3.2 Prerequisites

ECON 6112 or ECON 6113, and either ECON 6201, ECON 6202 or MBAD/FINN 6157.

### 3.3 Course Objectives

The objective of this course is to introduce students to the process of conducting scientific research in economics and the social sciences more generally. We will focus on how to identify a viable and feasible research question, how to frame it within the existing literature, and how to present the results, both in writing and orally.

Throughout the course, students will develop a small research project on their own, which will ideally be the basis for a more extensive project in Research Methods II (ECON 6902). In this research project, each student will start with replicating a recent published or working paper of their choice, followed by an analysis of a small extension to the original analysis, developed and carried out by the student.

### 3.4 Course Resources

There is **no required textbook** for this class. All class material, such as required and optional readings, assignments, handouts, etc., will be made available on the class website (Canvas) as we go along. While the class does not require any textbook, here are a few resources that we highly recommend for your reference:

1. Angrist J, Pischke J. 2008. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press. ISBN 9781400829828.  
URL <https://books.google.com/books?id=ztXL21Xd8v8C>
2. Cameron A, Trivedi P. 2010. *Microeconometrics Using Stata, Revised Edition*. Stata Press. ISBN 9781597180733.  
URL <https://books.google.com/books?id=UkKQRAAACAAJ>
3. Strunk W, White E, Kalman M. 2007. *The Elements of Style*. A Penguin book : Reference. Penguin Books. ISBN 9780143112723.  
URL [https://books.google.com/books?id=sj5\\_wr6zIEcC](https://books.google.com/books?id=sj5_wr6zIEcC)
4. McCloskey D. 1999. *Economical Writing: Second Edition*. Waveland Press. ISBN 9781478609568.  
URL <https://books.google.com/books?id=HQwZAAAAQBAJ>

## 4 Course Grade

The overall grade for this course will be based on 2 components (plus one opportunity for bonus credit), described in detail below. The different components are weighted in the following way:

<b>1. Class Attendance/Participation</b>	<b>15%</b>
<b>2. Assignments</b>	<b>85%</b>
- Assignment 1: Assigned Replication + Individual Paper Selection	10%
- Assignment 2: Individual Paper Replication	15%
<b>Class Project/Proposal Defense</b>	
- Assignment 3: Motivation + Literature Review (written & oral)	15%
- Assignment 4: Data, Summary Statistics, Proposed Methods (written & oral)	15%
- Assignment 5: Preliminary Analysis/Results (written & oral)	15%
- Assignment 6: Final Class Paper (written)	15%
<b>3. Economics Seminar Attendance</b> (Bonus Credit)	<b>3 pp</b>

## 4.1 Class Participation

We plan to hold 15 class meetings. In each class meeting, each student may earn one percentage point for participation. Simply showing up is not sufficient to receive the class participation point. It is up to the instructor's discretion what is considered sufficient participation to warrant the participation point. The following activities will be considered as participation:

1. Each student needs to be prepared to **answer questions about and/or give a brief synopsis of assigned class readings** for each class. Typically, if a paper is assigned as required reading for a class, each student needs to be prepared to answer the following questions if called upon: What is the main goal/point of the paper? How do the authors tackle the question? What are the main results?
2. Particularly later in the semester, each student needs to be prepared to give an **in-class update on the current status of his/her ongoing project**.
3. Students are encouraged to **give feedback and ask clarifying questions** when somebody else is presenting (including the instructors). This is a vital part of being a researcher. Typically, researchers frequently present ongoing work ("working papers") at various conferences and seminars, before submitting a draft to a journal. The weekly updates and group discussions during class will serve the same purpose. We encourage students to make use of the luxury that they can bug the instructors and their peers about their project once a week.

## 4.2 Assignments

The following rules apply to all assignments:

1. While we **encourage students to work in groups** and help each other out (including the first assignment), **each student must submit his/her own copy of the assignment** to receive any credit.
2. All assignments need to be submitted via Canvas upload before the posted due date.
3. Late assignments lose 5 percentage points each day. Be aware that Canvas records the exact timestamp of your file upload(s), so even 1 minute late is late!
4. Each assignment is to be submitted as either two or three files. There are two cases:

- (a) **One PDF + one .zip** file. In this case, the PDF contains your formal written work. This PDF has to be compiled with professional text processing software (e.g. MS Word, Google Docs, L<sup>A</sup>T<sub>E</sub>X, etc.) and cannot be images of handwritten work. The .zip file may contain auxiliary computer code (e.g., Stata, Matlab, R, SAS, Excel, etc.) producing your empirical/computational results (if any).
  - (b) **Two PDFs + one .zip** file. If the assignment includes a class presentation, you submit an additional PDF with your presentation slides. Even if you plan to use Powerpoint, Keynote, or some other presentation software for your actual presentation, the submitted set of slides **MUST BE IN PDF FORMAT!** Feel free to include the source file (e.g. pptx, etc.) in your .zip file with auxiliary code.
5. All written work in Research Methods I and II will require that you follow certain **style and formatting guidelines**. While we will provide further details throughout the class, we summarize these here. Generally, take the layout of the papers you will read throughout this class as a guideline of how to professionally typeset a research article.

At the very minimum, make sure you follow at least the following guidelines:

- (a) All written work must be prepared with **professional typesetting software** (e.g., MS Word, L<sup>A</sup>T<sub>E</sub>X, Google Docs, etc.)
- (b) All papers **MUST BE SUBMITTED IN PDF FORMAT!!!!!!** We cannot stress this point enough! Do not hand in papers as editable word processing files (e.g. .docx). Depending on the software, operating system, etc. your file may look nothing like what you thought it would on somebody else's computer. This may be due to a different version of MS Word, the person's operating system, etc. A PDF looks the same, always and everywhere. That is the point of making a PDF. It looks exactly the way you want it to look like.
- (c) All written submissions must include the student's **name, paper title, date, and page numbers**
- (d) References should be formatted using a consistent reference style and must be compiled with a **professional reference management software**. We will introduce you to a free, extremely practical, referencing software called [Zotero](#). If you prefer to use another citation manager (e.g. Endnote, Bibtex, etc.) you are welcome to.
- (e) Figures and tables must
  - i. have a figure number and title
  - ii. have a self explanatory figure note, explaining what is in the figure
  - iii. referenced with their table number in the text (do not say "the figure above shows", instead say "Figure 2 shows...")
- (f) Tables should not simply be copied and pasted from Stata (or other statistical software) output.

**Important: If an assignment does not comply with the above guidelines (up to the instructor's discretion), the assignment will be returned and may be resubmitted as a late assignment. The student loses 5 percentage points for each day the assignment is late, starting with the day the assignment was returned to the student. If the resubmission still does not comply with the guidelines the assignment score will be zero.**

## Assignment 1: Assigned Replication + Individual Paper Selection (10% of final course grade)

**Part 1:** We will provide two journal articles on Canvas and ask you to “replicate” the key results for *one* of the two papers (your choice). Your replication must be submitted as a single PDF and a .zip file containing auxiliary materials (e.g., your code) and must include the following:

1. A brief discussion of at most one page (12 point, double spaced, one inch margins) which addresses the following points:
  - (a) What is the main question the paper tries to answer?
  - (b) How do the authors go about answering this question?
  - (c) What is the main conclusion of the paper?
2. Replication of the key empirical results in the paper using the same data as the authors (more details in the actual assignment).
3. A brief discussion of the results you obtain:
  - Do your own results match the paper exactly (up to rounding errors)?
  - Note that this will require reading the paper VERY CAREFULLY. In particular, make sure to pay close attention to the descriptions of various data manipulations that the authors conduct, before running their final regressions. It is your job to figure this out and replicate EXACTLY what the authors did (up to rounding errors).
  - If you can't match the results exactly (you should get very close when using the same data), discuss why you think the results might differ?
4. A brief section that describes where to find the programs that produce your results and how to run them. In your .zip file, only include material that is necessary to replicate your work. Do not include unnecessary files.
5. The final product should not exceed 5 pages (12 point, double spaced, one inch margins), including graphs and tables.

**Part 2:** Below is a **link to past NBER conferences and workshops**. These workshops cover all major fields within economics and should give you a good snapshot of **what successful scholars in economics are currently working on**.

Papers in the most recent workshops will typically either be “working papers” but some will be works in progress without draft: papers that have a completed draft and may or may not already be under submission at an academic journal. If you go further back in time, most (but not necessarily all) of the papers are probably published in a journal in the meantime. So for older papers, copy the title into google scholar and check whether a newer version has been published in the meantime. Published papers have the benefit that the data is typically made available by the journal. Newer papers are probably on more recent “hot topics”, but the downside is that these are still work in progress and the authors are likely not going to share their data with you.

- Past NBER meetings: <https://conference.nber.org/confer/old-conference.html>

**Your task:** Use the link above and **select three papers** that you find interesting and you think you can replicate (like you did in part 1 with the two assigned papers). For each paper, be prepared to explain the following in class:

1. What is the paper about?
2. Why do you find it interesting? It is possible that you only find part of the paper interesting. That's OK.
3. What would you do to replicate the paper? Where would you get the data? How would you do the analysis? Note that it is not always necessary to replicate every single result in the paper (especially working papers can have A LOT of analysis). It is OK to pick one result of the paper, and focus on that. You just need to be clear about that.

**Important: What is the goal of this assignment?** Throughout the rest of the class, we will ask you to do the following with one of the three papers you identified:

1. Replicate the main results you are interested in (as you did with the replication project we assigned)
2. Identify a small extension to the paper (e.g., different data, different outcome, etc.)
3. Write a class paper about this small extension; your own small research project.

So, **choose your paper wisely, because you will have to work on it for the rest of the semester.** We ask you to select three papers, so that you have some backups, in case we decide that your favorite paper is not a good idea (e.g. data is too hard to get, it's not doable in the time available, etc.).

### **Assignment 2: Replication of Selected Paper (15% of final course grade):**

Prepare a replication of the main results in your selected paper, just like you did with the assigned replication in Assignment 1.

### **Assignment 3: Motivation + Literature Review (15% of final course grade):**

Propose an extension to the paper you replicated in Assignment 2 and write a 1-2 page "literature review" that addresses the following:

1. How does the original paper fit in the broader literature? What does it add to the literature that existing studies haven't addressed yet? Why is this important?
2. How does your proposed extension add new insights to the literature?
3. What could we potentially learn from your proposed exercise, and why do we care?
4. Which data will you use? Where will you get the data from?

### **Assignment 4: Data, Summary Stats, Methods (15% of final course grade):**

1. Prepare a 1-3 page (including tables and graphs) written document that summarizes the data and methods you will use. Make sure to point out the key features of the data you will use and why your methods are appropriate for the task
2. Prepare a set of at most 4 slides so you can present the main findings to the class. We will then as a group discuss the merits of your proposed agenda.

### Assignment 5: Preliminary Analysis/Results (15% of final course grade):

1. Prepare a 5 page (including tables and graphs) written document that summarizes preliminary results from the analysis you have done so far. Ideally this should have the “bare ones” of the main results you’re looking for.
2. Prepare a set of at most 4 slides so you can present the main findings to the class. We will then as a group discuss the merits of your research so far.

### Assignment 6 (15% of final course grade):

1. Combine your work from the previous assignments (proposal/motivation, literature review, results) into a full blown paper. Ideally, your paper should have roughly (this is not exactly necessary!) the following structure:
  - (a) **Introduction:** summarizes your main motivation, what you are doing, and your results
  - (b) **Literature Review:** explains how your work fits into the existing literature (what gap it fills)
  - (c) **Methods/Conceptual Framework/Theory:** a section that explains the thought experiment you have in mind and how your methods allow you to get at the question you’re interested in. It also explains how one needs to interpret any possible findings that come from this analysis
  - (d) **Results:** shows your main results
  - (e) **Conclusion:** sums up
2. Prepare a 15-20 minute presentation of your work. The number of slides depends on how much you want to say on each slide.

### 4.3 Seminar (Bonus Credit):

The economics department regularly hosts guest speakers in the [Economics Seminar Series](#). The seminar series provides a great opportunity to see what active research economists are currently working on. You may earn **up to three bonus percentage points** for attending seminars. Each seminar you attend counts for one point, up to a total of three. It is your own responsibility to check the seminar schedule on the [Economics Seminar Series webpage](#).

In order to receive credit, you must sign in with one of the instructors (or another faculty member if I’m not present) at the beginning of the seminar to earn the credit (we will ask you to follow up with an email). The extra percentage point will be added to your overall numerical class score (up to a maximum of 100).

## 5 General Rules

**Academic Integrity:** Please note that academic misconduct (cheating) will NOT be tolerated. In addition, students have the responsibility to know and observe the requirements of [University Policy 407 \(The Code of Student Academic Integrity\)](#). This code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Academic evaluations in this course include a judgment that the student’s work is free from academic dishonesty of any type; and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who

violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases, the course grade is reduced to U. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

**Statement on Diversity:** The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

**Adverse Weather:** If the University is closed or if the Charlotte-Mecklenburg School system is closed, there will be no class. If you commute in from outside the county and there is adverse weather there (but not in Mecklenburg County), make your own decision to attend or not, but remember we do not want you to endanger life or limb just to get to class.

**Communication:** To repeat: Dr. Depken's email address is [cdepken@uncc.edu](mailto:cdepken@uncc.edu) and Dr. Gaggl's email address is [pgaggl@uncc.edu](mailto:pgaggl@uncc.edu). **Always email both of us.** Please include "ECON 6901 student question" in the subject line to ensure a prompt reply. If the question is such that all students could benefit from a reply, we may reply to all students in the class.

General announcements will be made through Canvas. Make sure you configure your Canvas client in a way so that you receive an email notification whenever a new announcement is posted. Whenever we email an individual or the entire class, we will use your official university email address. You are responsible for monitoring this address: we will not use your private address.

**Disability Services:** UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704- 687-0040 or visit their office at Fretwell 230.