

**READINGS**

There are no required textbooks for this course that need to be purchased. Assigned readings will consist of book chapters or journal articles from a variety of sources (a reading list is attached).

One book that contains many chapters that will be covered in class, *Estimating Causal Effects Using Experimental and Observational Design* (Schneider, Carnoy, Kilpatrick, Schmidt, & Shavelson, 2007), can be found in its entirety here:

<http://www.era.net/Portals/38/docs/Causal%20Effects.pdf>

If you are looking for a good general introduction to research methods with an emphasis on quantitative research, I recommend:

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

An additional useful book (that goes into way more ‘mathy’ detail than this course, but is also really useful to understanding the ‘why’ behind the math) is:

Angrist, J. D. & J-D Pischke *Mastering ‘Metrics: The Path from Cause to Effect*. Princeton University Press.

Most if not all of the assigned journal articles are available for download through the NYU Library e-journal portal. I will provide copies of readings, or direct links to the article source, on NYU Classes. Class discussion will focus on the assigned readings, so please prepare for each meeting by reading the assigned articles before class.

**HOW TO
APPROACH
READINGS**

Assigned readings should be accessible to any graduate student with some familiarity with quantitative methods and general knowledge of education policy. However, some readings will use sophisticated statistical techniques with which you may be unfamiliar. Instead of focusing on statistical details, it is better to focus on these objectives:

- be able to identify the specific research question that is being addressed, or hypothesis that is being tested
 - be able to explain in simple terms (not mathematical) the methods the author(s) are using to answer their research question or test their hypothesis
 - be able to describe what data the author(s) use (if any) to address their research question
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**COURSE
FORMAT**

Most classes will be divided into three sections:

- The first section will involve lecture on the day's topic
 - The second section will involve discussion of assigned readings / modeling of statistical analyses in class
 - The third section will involve group presentations and discussions of paper (more explained below)
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**COURSE
REQUIREMENTS**

Your grade for this course will be determined as follows:

Three Written Problem Sets	10% X 3 = 30%
Stata Project	15%
Written Research Review	15%
Midterm	20%
Final Exam	20%

**STATA AND
VIRTUAL
COMPUTER LAB**

Many of the assignments for the course will require use of Stata, a statistical software package. To access Stata:

First, NYU has a service called the Virtual Computer Lab that provides access to university-licensed software from anywhere with an NYU student login. You can access this site through NYUHome, or here: <https://www.nyu.edu/life/information-technology/instructionaltechnology-support/instructional-technology-tools-and-services/virtualcomputer-lab.html>. You can access Stata, as well as other useful software such as Microsoft Excel, from this website. However, the number of concurrent users of Stata at any given time across the university is 50.

Second, you can purchase a 6-month license of Stata for \$35. More information can be found on this website:

<http://www.stata.com/order/new/edu/gradplans/student-pricing/>

The 6-month license of "Small Stata" is sufficient for this course.

GRADING

As a rule, no late assignments will be accepted. A late or incomplete assignment (barring unforeseen hardship, which will need to be documented) will result in a failing grade for the assignment, and possibly the course. If you are absent for class on a day when an assignment is due, the assignment must be turned in BEFORE class; otherwise, the assignment will not be considered submitted. The same rules apply for exams.



**OTHER
POLICIES**

Please make an effort to be on time and please turn off your cell phone—and other digital distractions—while in class (I will do the same). *Responsible* use of a laptop in class is welcomed.

NYU and Steinhardt policies toward academic integrity will be strictly enforced in this class. You can find the school’s official statement on academic integrity here:
http://steinhardt.nyu.edu/policies/academic_integrity.

You are encouraged to study and work together on homework assignments, but all work submitted must be your individual work.

Please see me immediately if you have any conflicts with scheduled assignments and/or exams, or if you anticipate being absent due to religious observances.

If you wish to withdraw from this course, please do so formally with the University Registrar. If you withdraw without authorization, you are at risk for receiving an “F” for the course.

Any student attending NYU who needs an accommodation due to a chronic psychological, visual, mobility and/or learning disability, or is Deaf or Hard of Hearing, should register with the Moses Center for Students with Disabilities at 212-998-4980, 726 Broadway, 2nd floor (www.nyu.edu/csd).

**SOME NOTES
ABOUT ZOOM**

- All online sessions will be recorded so that students can review sessions. Online sessions will be posted under “Zoom” in NYUClasses
- You are not required to have your camera on or microphone on at all times
- In your Zoom profile please include your first (or preferred) name and last name, as well as pronouns if you desire
- All chat messages will be saved and uploaded to our NYU Classes site
- All private messages can be seen by the host at the end (FYI)
- Please feel free to ask questions in the chat or raise your hand as we go – I will try my best to answer questions as they come up
- We will be going over some of the basics in class for reactions and student engagement, however if you are unfamiliar with Zoom and want to learn more about the basics:
<https://www.linkedin.com/learning/learning-zoom/stay-connected-with-zoom-meetings?u=2131553>



RESEARCH REVIEW INSTRUCTIONS

WRITTEN REVIEW

Each student must submit a 3-page research review based on a selected reading (double-spaced, with 1” margins and 11 or 12 point font size). The research review is a written synthesis that describes and critically analyzes a piece of empirical research. Suggestions on how to approach the review are provided below. *Your submitted written review must be your own individual work.* That is, we will not accept a collective review.

CHOOSING A REVIEW PAPER

In the first week of class, you will have an opportunity to sign up for a research paper I encourage you to select a paper topic that interests you. We do need volunteers to begin writing in the second week. Rest assured that those presenting early in the semester will not be penalized for their lack of exposure to the course material!

GUIDELINES

Your review should address the following types of questions:

- What is the specific research question that is being addressed?
- Why is this an interesting research question?
- Is there an underlying theory that motivates this empirical study?
- Are the authors using data to test some hypothesis? If so, what is the hypothesis?
- What kind of data does the author(s) use? Where did it come from?
- Many of the papers you will look at perform regression analysis— if so, what is the *dependent variable* (that is, what variable or outcome are they trying to explain) and what are the key *explanatory variables*?
- Is the data observed and non-experimental in nature, or the product of a randomized experiment?
- What is the paper’s key empirical finding?
- Is there anything that the authors do to convince you that they have found a *causal* relationship between their dependent variable and explanatory variable of interest, and not a simple correlation?
- Is there anything you find unconvincing about the paper? Can you think of an alternative explanation for the key empirical finding?
- Are there any policy implications from the results of the paper?

A good way to approach the research review is to assume you are writing for interested parties who are not familiar with the academic literature and are not quantitative experts of any kind. They have asked you to write and present this paper to bring out the key points, salient issues, and implications for public policy.

Avoid using jargon or repeating technical language.

**COURSE OUTLINE AND READING LIST**

(*) = required reading (all other are recommended)

(R) = research review article

Date	Note	Content
September 8		General Introduction
Lecture 1	<i>No recitation this week</i>	- Introductions - Syllabus (Expectations; Guidelines; Course Overview)
September 15		Statistics: Displaying categorical data Content: International comparisons; Inclusive Education
Lecture 2	<i>Problem Set 1 handed out</i>	* (R) Organisation for Economic Co-operation and Development. (2013). <i>PISA 2012 results in focus: what 15-year-olds know and what they can do with what they know</i> . Washington, DC: Author. http://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf * UNESCO (2020) <i>Global Education Monitoring Report: Inclusion and Education</i> . https://en.unesco.org/gem-report/report/2020/inclusion . Introduction, pp. 3-20. * US Census, 2015. <i>Educational Attainment in the United States, 2015</i> .
September 22		Statistics: Exploring the relationship of two categorical variables / hypothesis testing Content: Social Mobility
Lecture 3		* (R) Haveman, R., & Smeeding, T. (2006). The role of higher education in social mobility. <i>The Future of children</i> , 125-150. * Perry, L. B., & McConney, A. (2010). Does the SES of the school matter? An examination of socioeconomic status and student achievement using PISA 2003. <i>Teachers College Record</i> , 112(4), 1137-1162.
September 29		Statistics and Content: Causal inference
Lecture 4	<i>PROBLEM SET 1 DUE</i>	* (R) Schneider, B., Carnoy, M., Kilpatrick, J., Schmidt, W. H., & Shavelson, R. J. (2007). <i>Estimating causal effects using experimental and observational design</i> . American Educational & Research Association. (Only need to read page 9-18 for lecture 4) * Rothman, K. J., & Greenland, S. (2005). Causation and causal inference in epidemiology. <i>American journal of public health</i> , 95(S1), S144-S150.



October 6	Statistics: Regression analyses (1): when the relationships involve more than just two parties Content: Racial/ethnic differences in academics
Lecture 5	* (R) Ainsworth-Darnell, J. W., & Downey, D. B. (1998). Assessing the oppositional culture explanation for racial/ethnic differences in school performance. <i>American sociological review</i> , 536-553. * Kao, G., & Thompson, J. S. (2003). Racial and ethnic stratification in educational achievement and attainment. <i>Annual review of sociology</i> , 29(1), 417-442. Warikoo, N., & Carter, P. (2009). Cultural explanations for racial and ethnic stratification in academic achievement: A call for a new and improved theory. <i>Review of Educational Research</i> , 79(1), 366-394.
October 13	Statistics: Regression analyses (2) Content: International Comparisons (2)
Lecture 6	* (R) Buchmann, C., & Park, H. (2009). Stratification and the formation of expectations in highly differentiated educational systems. <i>Research in Social Stratification and Mobility</i> , 27(4), 245-267. *Woessmann, L. (2011). Cross-country evidence on teacher performance pay. <i>Economics of Education Review</i> , 30(3), 404-418.
October 20	Statistics: Regression analyses and interactions – when relationships differ Content: Gender, poverty and education
Lecture 7	* (R) Hannum, E. (2003). Poverty and basic education in rural China: Villages, households, and girls' and boys' enrollment. <i>Comparative Education Review</i> , 47(2), 141-159. * Cherng, H. Y. S., & Hannum, E. (2013). Community poverty, industrialization, and educational gender gaps in rural China. <i>Social forces</i> , 92(2), 659-690. Brown, P. H., & Park, A. (2002). Education and poverty in rural China. <i>Economics of education review</i> , 21(6), 523-541.
October 27	

Problem Set 2
handed out

**No recitation
this week**

MIDTERM EXAM



November 3	Statistics: Panel / longitudinal data and regression analysis and scales
	Content: Study abroad/Grade Repetition in Uganda
Lecture 8	<ul style="list-style-type: none"> * (R) Martinsen, R. A. (2010). Short-term study abroad: Predicting changes in oral skills. <i>Foreign Language Annals</i>, 43(3), 504-530. * Chieffo, L., & Griffiths, L. (2004). Large-scale assessment of student attitudes after a short-term study abroad program. <i>Frontiers: The interdisciplinary journal of study abroad</i>, 10, 165-177. Kabay, S. (2016). Grade Repetition and Primary School Dropout in Uganda. <i>Harvard Education Review</i>
November 10	Statistics: Hierarchical Linear Modeling (HLM)
	Content: School effects
Lecture 9	<ul style="list-style-type: none"> *(R) Lee, V. E. (2000). Using hierarchical linear modeling to study social contexts: The case of school effects. <i>Educational psychologist</i>, 35(2), 125-141. *Ready, D. D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive development: The differential effects of school exposure. <i>Sociology of Education</i>, 83(4), 271-286. Bidwell, C. E., & Kasarda, J. D. (1980). Conceptualizing and measuring the effects of school and schooling. <i>American journal of Education</i>, 88(4), 401-430. Russell, G. & Tiplic, D. (2014). Rights-based education and conflict: a cross-national study of rights discourse in textbooks. <i>Compare: A Journal of Comparative and International Education</i>
	PROBLEM SET 2 DUE
November 17	Statistics: Randomized control trials and its critiques
	Content: School and curriculum effects
Lecture 10	<ul style="list-style-type: none"> * (R) Burde, D. (2012). Assessing impact and bridging methodological divides: Randomized trials in countries affected by conflict. <i>Comparative Education Review</i>, 56(3), 448-473. * Lareau, A. (2009). Narrow questions, narrow answers: The limited value of randomized controlled trials for education research. <i>In Education Research On Trial</i> (pp. 155-172). Routledge. * Schneider, B., Carnoy, M., Kilpatrick, J., Schmidt, W. H., & Shavelson, R. J. 2007). <i>Estimating causal effects using experimental and observational design</i>. American Educational & Research Association. (Only need to read page 18-32 for lecture 10) Muralidharan, K., Singh A., and A. J. Ganimian (2019) Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India. <i>American Economic Review</i>, 109(4): 1426-1460.
	Problem Set 2 handed out
November 24	

* Review Day

THANKSGIVING



December 1	Statistics: Quasi-experimental design: Propensity score matching Content: Returns to higher education
Lecture 11	* (R) Titus, M. A. (2007). Detecting selection bias, using propensity score matching, and estimating treatment effects: An application to the private returns to a master's degree. <i>Research in Higher Education</i> , 48(4), 487-521 * Schneider, B., Carnoy, M., Kilpatrick, J., Schmidt, W. H., & Shavelson, R. J. (2007). <i>Estimating causal effects using experimental and observational design</i> . American Educational & Research Association. (Only need to read page 49-52 for lecture 11) Melguizo, T., Kienzl, G. S., & Alfonso, M. (2011). Comparing the educational attainment of community college transfer students and four-year college rising juniors using propensity score matching methods. <i>The Journal of Higher Education</i> , 82(3), 265-291.
December 8	Statistics: Quasi-experimental design: Regression discontinuity Content: High-stakes testing
Lecture 12	* Conger, D. (2013). The effect of grade placement on English language learners' academic achievement. <i>Educational Evaluation and Policy Analysis</i> , 35(4), 395-412. (R) Reardon, S. F., Arshan, N., Atteberry, A., & Kurlaender, M. (2010). Effects of failing a high school exit exam on course taking, achievement, persistence, and graduation. <i>Educational Evaluation and Policy Analysis</i> , 32(4), 498-520.
December 15	

**PROBLEM SET
2 DUE**

FINAL EXAM