

Quantitative Methods 2
MSc and MPhil in Economics and Social History
MICHAELMAS TERM 2021-2022

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Time: 9-11 W

Course Description

Quantitative Methods 2 introduces students to multiple regression and related methods for analyzing data in economics and related disciplines. Additional topics include regression with discrete random variables, instrumental variables regression, analysis of quasi-experiments, and regression with time series data. Students will learn how to conduct - and how to critique – empirical studies. Accordingly, the emphasis of the course is on empirical applications. The mathematics of econometrics will be introduced only as needed and will not be a central focus.

Textbook and Readings

The main reference is J.H. Stock and M.W. Watson, Introduction to Econometrics. Optional books, which provide a complementary treatment that some students might find helpful (and which will be referenced at times in lecture), are J.M. Wooldridge, Introductory Econometrics and Angrist, J.D., and J.S. Pischke, Mostly Harmless Econometrics.

Assignments

There will be weekly problem sets, each of which involves empirical analysis. The course statistical software is STATA. Problem sets and data will be posted on my webpage. **Problem sets are due on Tuesday at 13:00.** These should be submitted by email to Hannah and I. The subject of the email has to be: “Problem Set: Week XX.” The attachment names have to be “LastName_FirstName_WeekXX_Y” where Y is either answers, the script, or the output log.

Final Exam

The final exam is a take home exam that will be available by Week 8 in Michaelmas Term. It has to be submitted on **Monday of Week 1 in Hilary Term.**

Course Schedule

Week	Topic	Readings: Ch #	<i>Posted</i>	<i>Due</i>
1	Intro. and Bivariate Regression I	2, 3, 4	<i>PS1</i>	
2	Bivariate Regression II, Multiple Regression	4, 5, 6, 7	<i>PS2</i>	<i>PS1</i>
3	Nonlinear Models, Binary Dependent Variable	8, 11	<i>PS3</i>	<i>PS2</i>
4	Assessing Regression Studies, IV Regression I	9, 12	<i>PS4</i>	<i>PS3</i>
5	IV Regression II, Quasi-Experiments, Heterogeneity	12, 13, <i>App.13.2</i> – 13.3	<i>PS5</i>	<i>PS4</i>
6	Heterogeneity II, Panel Data	<i>App.13.2</i> – 13.3, 10	<i>PS6</i>	<i>PS5</i>
7	Dif-in-Dif, Time Series I	10, 14	<i>PS7</i>	<i>PS6</i>
8	Time Series II	14	<i>PS8</i>	<i>PS7</i>
9				<i>PS8</i>