PUBPOL 475
Fall 2015

Quantitative Methods for Program Evaluation

Instructor: Professor Brian Jacob, bajacob@umich.edu
Weill Hall 5124

Tutor/Grader: Grady Bridges, bridgesg@umich.edu

Office hours: Tuesdays, 10am-12noon, Sign up at http://goo.gl/5LheGr

Class Meetings: Monday & Wednesday 10-11:30am
Weill 1210

OVERVIEW
This course introduces students to the use and interpretation of multiple regression analysis and program evaluation. The goals of the class are to:

1) Train students to *critically consume* empirical research. We will teach you to read and understand technical, empirical studies and to judge whether they constitute a firm, evidentiary basis for policy.
2) Train students to *thoughtfully produce* their own empirical research. We will develop a core set of analytical tools that will allow you to conduct empirical research in a professional setting.

While this couse is fundamentally about teaching *methods* of quantative analysis, it differs from other similar courses in that it makes a particular effort to embed the learning in real data and actual policy problems. Topics covered include education, health care, national security and international development.

PREREQUISITE
The course requires introductory statistics (hypothesis testing, t-statistics, confidence intervals) at the level of STATS 250, PUBPOL 529, EDUC 793 or the equivalent. Students taking one of these courses concurrently will *not* be allowed to enroll in 475. Introductory calculus and microeconomics are strongly recommended but not strictly required.

CLICKERS
The i>clicker audience response system (clickers) will be used regularly in this class. i>clicker devices will be available for purchase from the Computer Showcase in the Michigan Union and Pierpont Commons. For this class you must purchase a clicker device. Personal devices with the web-clicker subscription may not be used.

The cost for a new i>clicker has been around $33 in recent years, and used i>clickers are available for even less. At the end of the term, your clicker can be sold back to the Computer Showcase. Students can find more information about clickers at http://blogs.lsa.umich.edu/ltc/students/.

READING
Read the assigned articles and chapters closely before class (see class participation, below). Get the readings early enough that you are not derailed by any technical difficulties.

Textbook

Stock and Watson, *Introduction to Econometrics* (syllabus references are to 3rd edition, but older editions contain virtually identical content).

Articles & Book Chapters
We will read papers and reports on education. These readings will be provided on CTOOLS or via links we will provide to you.

GRADING

Problem Sets (3)	15%
Mid-terms (2)	30%
Take-Home Final Assignment	15%
Final In-Class Exam	30%
Participation & Attendance	10%

QUIZZES & FINAL
Quizzes will test material from homework, reading and lectures. The quizzes are closed book. You may consult a single index card of notes and use a calculator (no cell phones).

*** There will be no alternate arrangements made for the take-home or in-class final, so plan your schedule accordingly. ****

HOMEWORK
Homework assignments consist of data analysis and writing short essays (< 1/2 page) that interpret your findings. They are graded on three-point scale: check (=acceptable), check-minus (=deficient), and zero (not completed). For the purpose of comparing these problem set grades to quiz and exam grades, a check will count as 90%, a check-minus will count as 80% and a zero will count as a 50%.

You are encouraged to discuss the assignments in groups of up to three students, but *your answers must be written up individually, in your own words*. List your study group members on your problem set.

You will type your problem set, convert to a PDF and upload to CTools. We will annotate the PDF and return it, graded, to CTools. Stata do-files and log files should accompany all your assignments (also in PDF format). For some assignments, you will submit your answer(s) via iclicker at the beginning of class.

PARTICIPATION & ATTENDANCE
During each class, I will ask questions of randomly selected students. This is intended to encourage democratic participation and discourage napping. Names will be drawn from the class list using a random number generator. The questions will be based on the reading assignments, problem sets and lectures.

We will also ask questions in class via clicker in section and class. For example, students will solve a problem, log the answer, and discuss the answer with the class. We understand that you will sometimes forget your clicker or the batteries will fail. We will therefore drop clicker responses for two class sessions from the calculation of the course grade.

If you believe you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities to help

us determine appropriate accommodations. I will treat any information you provide as private and confidential.

STATA
We will program in Stata, a software program used widely by policy analysts. Having "Stata" on your resume makes you more employable, so embrace it!

We provide links to online Stata tutorials and offer training in sections. Since there is no computer lab large enough to hold our class, you will rely on your laptops to practice Stata programming during these sections. *You must therefore own a copy of Stata.*

You can get a Stata license for just this semester at a very affordable price. Order through the Stata website (http://www.stata.com/order/new/edu/gradplans/us-pickup/) and then pick up at Computer Showcase.

- We recommend Intercooled Stata (most recent version, 12 or 13 is fine), which works with an unlimited number of observations.
- You could squeak by with Small Stata, but it maxes out at 1,200 observations. Most of our data sets will be under that limit some will not. In the professional world, almost no datasets used by analysts are this small.

LAPTOP POLICY/TAKING NOTES
To keep us focused on the class and on each other, we will keep laptops closed. I will distribute copies of overhead slides for you to take notes on. If you want to store all class material on your laptop, transcribing your handwritten notes after lecture is a great a way to nail the material. I will post a PDF of the slides after lecture to facilitate this process.