Georg-August-Universität Göttingen

Wirtschaftswissenschaftliche Fakultät
Professur für Wirtschaftspolitik
und Mittelstandsforschung

Dr. Petrik Runst

Seminar (BA), WS 2019 (6 CP)

„Stata for evidence based economic policy"

When: Summer-Semester 2020

Where: Conference Room, ifh Göttingen, Heinrich-Düker-Weg 6

Max. Number of Participants: 12

Course Description:

This class could also be titled "*A gentle Introduction to Stata*". Participants will acquire *broad* and *basic* skills in the art of data analysis using one of the most common statistical software packages within economics. This is not an econometric theory class but a hands-on "how-to" instruction. Nevertheless, a basic understanding of statistics (e.g. distributions, t-tests) and regression analysis is strongly recommended. The class will familiarize students with many concepts in applied econometrics. However, none of the concepts will be discussed in depth.

Participants are required to bring along their own laptop computer. Students should ideally own a copy of Stata. Students may for example purchase a Stata license, valid for one semester, via GWDG. We will talk about your options to obtain the program during the first meeting or when you sign up. The computer pool in "der blaue Turm" has Stata on all its computers.

Equipped with hardware and software, we will then perform all techniques together in class. For each topic, I will give a short and intuitive theoretical presentation. Instructional data sets will be made available to students. At the end of the semester, students will perform their own statistical analysis on a topic of their own choosing and turn in a 15 page research paper. This seminar will be held in English.

Target audience of this seminar:

BA-students in economics (VWL).

Assignments and Grading:

Final Paper[1] (max. 15 pages)

Grading:

This class covers a lot of content. I do not expect BA-students to master ALL of it. Instead, I expect you to apply about 50% of the concepts you learn in this class to your own research paper (e.g. topics 1 through 6). Basically, I want you to display a beginner's working knowledge of Stata and some appreciation of the problems surrounding a research project.

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[1] See http://www.uni-goettingen.de/de/informationen-zu-seminaren/69421.html for more information.

Registration:

You may sign up for this seminar by sending an email with your name and student-ID (Matrikelnummer) to Ms. Winny Theisen. Please indicate if you are a BA or MA student.

Registration/Dates:

Registration:	winny.theisen@wiwi.uni-goettingen.de
Once, you are signed up, save the following dates:	
First Meeting:	Thursday, April 16
Last Meeting:	Thursday, July 16
Time:	10.15 - 11.45 am
Final Paper Due:	Exact date to be determined (~August 31, via email)

Suggested Reading:

For application in Stata: Alan C. Acock "A Gentle Introduction to Stata." Stata Press

For detailed information about theoretical concepts: **Jeffrey M. Wooldridge** "Introductory econometrics". EMEA Edition

Online Stata Tutorials for Beginners

https://sites.google.com/site/econometricsacademy/

youtube.com

Topics

1	**Getting Started – Basic Data Management**
	Log-files, do-files, browser, editor, importing, labeling, merging, appending, help
2	**Data Management continued**
	Generating and managing variables , missing observations
3	**Descriptive Statistics and Graphs I**
	Tab, crosstab, sum, weighting, t-test
4	**Descriptive Statistics and Graphs II**
	Histograms, boxplots, scatterplots, outliers
5	**Factor Analysis, Principal Component Analysis, Clustering**
6	**OLS Basics**
	Theory, R-squared, p-values, hypothesis testing, interaction terms, prediction, Heteroskedasticity

7	**Panel Data**
	Pooled OLS, First-Differencing, Fixed Effects versus Random Effects
8	**Difference-in-Difference**
9	**Binary and Categorical Dependent Variables**
	Linear probability model, Logit and Probit, Multinomial Probit, marginal effects, prediction, graphing, interpretation
10	**Synthetic Control Method**
11	**Instrumental Variables**
Time permitting	**Spatial Econometrics**
	How to make maps with Stata, Moran's I etc.; Spatial Lag and Error Models
Time permitting	**Open class: individual conversations about your research progress**