

## Applied Data Analysis

### Instructors

Blaise Melly, blaise.melly@vwi.unibe.ch  
Office hour: Mondays, 9:00-11:00

Class location: UniS, A322 (PC-Pool)  
Time: Th, 10:15-12:00

### Course description

This course provides an introduction to data analysis using Stata. We consider data handling and management, data description, linear regression, instrumental variables estimation, GMM, binary choice models as well as programming in Stata. The distinctive feature of the course is a learning-by-doing approach, with a strong emphasis on the application of econometric methods to real data problems and the correct interpretation of results. A basic knowledge of linear regression is required. I recommend taking Econometrics II before Applied Data Analysis but this is not a formal requirement. Course language is English.

### Teaching and software

The course will take place in the PC-Pool of the department (UniS, A322). Stata 14 is installed on the computers. You are welcome to use your own laptop with Stata installed. All recent versions of Stata can be used.

### Grading

There will be a 3 hours open-book exam at the end of the course. 1st date: May 31, 9:00 until 12:00, 2nd date: tba.

### Readings

Two textbooks are used as background (all Stata Press):

- Baum, C.F. (2006) An Introduction to Modern Econometrics Using Stata (IMEUS)
- Cameron, A.C. and P.K. Trivedi (2010) Microeconometrics Using Stata (MUS)

## Tentative outline and schedule

Date	Topic	Chapters IMEUS	MUS
Feb 22	Introduction to Stata	1, 2.2	1
Mar 1	Data management	2.2, 3	2
Mar 8	Descriptive analysis	3	2.6, 3.2
Mar 15	Linear regression (1)	4,	3.3, 3.4
Mar 22	Linear regression (2)	5	3.5, 3.6
Mar 29	Linear regression (3)	6, 7	3.7
Apr 12	Instrumental variables (1)	8	6.1-6.3
Apr 19	Instrumental variables (2)	8	6.4, 6.5
Apr 26	GMM	8.7, 8.8	11.8
May 3	Binary choice	10.1	14
May 10	Ascension day: no course	9	8
May 17	Panel data models	App. B	App. A
May 24	Programming		
May 31	Exam		