

Intermediate Econometrics SS 2011

Course homepage: Intermediate Econometrics Homepage

Lecture: Mo., 16:15–17:45, HS Fahnenbergplatz
Tue., 08:30–10:00, HS 1009

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Exercise Sessions: Tue., 14:15–15:45, HS 3118 or PC Pool
Wed., 08:30–10:00 (Takes place only if the exercise session is a
PC tutorial. See the time plan on the homepage.)

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Prerequisites: Prerequisites are knowledge in Mathematical Statistics as well as basic knowledge in matrix algebra and probability theory.

However, a review of matrix algebra will be provided at the beginning of the course. Only basic concepts of matrix algebra will be used, and a brief writeup will be available on the course homepage.

Also, basic concepts of statistics can be reviewed in the exercise sessions/tutorials if needed. There are also appendices in Wooldridge (2009) on both probability/statistics and matrix algebra, which you can use to review what you will need.

Course description: The course is a required course in the first year of the integrated master programs. It can be chosen as an elective course in some elective areas of the Diploma studies. In the elective area “Empirische Wirtschaftsforschung und Ökonometrie” the course “Intermediate Econometrics” can replace the course “Einführung in die empirische Wirtschaftsforschung”.

The course provides an introduction into econometric methods for the analysis of cross-sectional data and time series data at the Master level. The course will focus on linear regression methods. The course involves an intuitive and applied presentation of econometrics with reference to economic examples used in the literature. In the accompanying exercise sessions, the participants will practice the use of these methods using the econometric package TSP for some real world economic problems.

Course content and references: The **main reference** is Wooldridge, J.M. (2009): *Introductory Econometrics: A Modern Approach*. Cincinnati, OH: South-Western College Publishing, 4e (the third edition will also do). The chapters indicated in the following synopsis refer to this book.

Note that we will make a more intensive use of matrix algebra than this text. Greene

(2007) is a frequently used introductory econometrics text that can be recommended to be read in addition to Wooldridge. In addition, several excellent resources can be downloaded freely from the web, such as the econometrics text by Bruce Hansen, University of Wisconsin. Parts of it are more advanced than what we will discuss, but many chapters just capture the standard material. You can find this text at <http://www.ssc.wisc.edu/bhansen/econometrics/>.

Synopsis:

1. Introduction, review of matrix algebra
2. The simple regression model (Ch. 1,2)
3. Multiple regression analysis (Ch. 3,4,5,7,8)
4. Limited dependent variable models (Ch. 17)
5. Time series (Ch. 10,11,12)
6. Panel data (Ch. 13)

Further references:

- Greene (2007): *Econometric Analysis*. 6e, Prentice Hall.
- Peter Kennedy: *A Guide to Econometrics*.
- Marno Verbeek: *A Guide to Modern Econometrics*.