

## MA-W-110/120 – Univariate Time Series Econometrics

### Course overview

**Description** This course deals with time series econometric methods that are mainly applied to the fields of macroeconomics and finance. The lecture and the tutorials will be held in English. Foundations in mathematics and statistics are essential. Models of univariate stationary and non-stationary processes will be presented. Students learn methods and tools for analyzing time series and apply them in computer tutorials to recent, real world data.

The course will be held within the first weeks of the semester. In a very compact form, the time series bootcamp will cover many lecture hours in a fairly short period of time. Note, however, you will have that course finished very quickly, too. Topics include:

- ARMA processes
- Persistent processes
- Integrated and co-integrated processes

**Lecturers** The lectures will be held by PD Dr. Till Strohsal and the tutorials will be led by Niels Aka.

### Recommended literature

- Kirchgässner, G., J. Wolters und U. Hassler (2013): *Introduction to Modern Time Series Analysis*, Springer-Verlag.
- Enders, W. (2004): *Applied Econometric Time Series*, Wiley & Sons.
- Lütkepohl, H. (2007): *New Introduction to Multiple Time Series Analysis*, Springer-Verlag.
- Hamilton, J.D. (1994): *Time Series Analysis*, Princeton University Press.

**Formal issues** The course accounts for a total of 6 ETC credits. The course can be taken via modules "Econometric Methods and Applications I", MA-W-110, MA-W-120 or MA-M-210. Taking the course via different modules is not possible unfortunately. The course is primarily intended for masters students in Economics.

**Exam** The 90-minute exams for the course will take place at December 2020 at 14:00 in S13. In the tutorials, students collect extra points for the exam based on their graded presentations.

**Time schedule and rooms** The first lecture in univariate time series econometrics will be on 19.11.2020. The first Tutorial will be on 20.11.2020.

	<b>Tuesday</b>	<b>Thursday</b>	<b>Friday</b>
16.11.20 - 20.11.20	-	Lecture**	Tutorial***
23.11.20 - 28.11.20	Tutorial*	Lecture**	Tutorial***
30.11.20 - 04.12.20	Tutorial*	Lecture**	Tutorial***

\* 15:00-18:00

\*\* 13:00-18:00

\*\*\* 14:00-17:00

**Rooms:**

Wednesday: 3.06.S14

Thursday: 3.06.S14

Friday: 3.01.1.65a (PC-Pool)