

Module Handbook

TUK MODHB Homepage

Course WIW-FE-WME-K-6

Quantitative Methods in Economics (2K, 3.0 LP)

Course Type

| SWS | Type | Course Form | CP (Effort) | Presence-Time / Self-Study |
|------|------|-------------|-------------|----------------------------|
| 2 | K | | 3.0 CP | 30 h 60 h |
| (2K) | | | 3.0 CP | 30 h 60 h |

Basedata

| | |
|--------------------------|---|
| SWS | 2K |
| CP, Effort | 3.0 CP = 90 h |
| Position of the semester | 1 Sem. in SuSe |
| Level | [6] Master (General) |
| Language | [EN] English |
| Lecturers | Wenzelburger, Jan, Prof. Dr. (PROF DEPT: WIW) |
| Area of study | [WIW-FE] Macroeconomics |
| Additional informations | Informations about the course |
| Lifecycle-State | [NORM] Active |

Notice

alte PO 2009: 3 LP, neue PO 2021: 4 LP

Contents

The lecture consists of two parts: Dynamical Systems and Statistics. First, we'll discuss linear parametric regression models.

We'll start with Simple Regression, which is generalized later on, when we talk about the General Linear Regression Model. After this first chapter, we'll go on to Generalized Linear Models, and we'll discuss Binary Regression.

In the Dynamical Systems part, we'll start with examining a linear one-dimensional system, i.e. we'll define and analyze steady states and their stability. Then, we'll consider non-linear non-dimensional systems and extend our results on existence and stability to the non-linear case. We'll use the same approach when discussing multidimensional dynamics.

Literature

Jan Wenzelburger: Dynamische Systeme, eine Einführung, Manuscript

Oded Galor: Discrete Dynamical Systems, Springer Verlag, Skript

Lecture Notes, Problem Sets

Requirements for attendance (informal)

None

Requirements for attendance (formal)

None

References to Course [WIW-FE-WME-K-6]

| Module | Name | Context |
|------------------|----------------------|-------------------------------------|
| [WIW-KM-QTM-M-6] | Quantitative Methods | WP: Obligation to choose 2K, 3.0 LP |