## Module title

**DSGE Modelling**

### Abbreviation

12-M-DMM-132-m01

### Module coordinator

holder of the Chair of Monetary Policy and International Economics

### Module offered by

Faculty of Business Management and Economics

### ECTS

5

### Method of grading

numerical grade

### Only after succ. compl. of module(s)

--

### Duration

1 semester

### Module level

graduate

### Other prerequisites

--

### Contents

The course offers an introduction to "Dynamic Stochastic General Equilibrium Modelling" (DSGE). These models are designed to describe the business cycle at the macro level. In a first step, we analyse the behaviour of a representative household. In particular, we describe how consumption, asset allocation and labour supply plans are formulated. In a second step, we focus on the firm sector and address how firms solve for optimal production plans. In a third step, we explain what role the central bank plays in stabilising the business cycle. Thereby, we show how changes in interest rates interact with optimal decisions taken by households and firms. We also discuss hot topics such as CAPM models and monetary policy in the euro area.

### Intended learning outcomes

The course offers analytical tools designed to solve DSGE models. These analytical skills encompass:

- Solving of intertemporal optimization problems (e.g., consumption Euler-equations).
- Linearization methods (e.g., Taylor-expansions).
- Solving linear difference expectations by minimum state variable techniques (MSV-solution).
- Basic time series concepts such as impulse response functions, variance decompositions.
- Basic insights in MATLAB/Dynare programming: specifying, solving and estimating DSGE models.

### Courses

V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)

Language of assessment: German, English

### Allocation of places

--

### Additional information

--

### Referred to in LPO I

(examination regulations for teaching-degree programmes)

--

### Module appears in

Master's degree (1 major) Business Management (2013)
Master's degree (1 major) Business Management (2014)
Master's degree (1 major) Economics (2014)
Master's degree (1 major) Economics (2013)