

Module title		Abbreviation
DSGE Modelling		12-M-DMM-252-m01
Module coordinator		Module offered by
head of the Work Group of Empirical Economics		Faculty of Management and Economics
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
<p>The course provides an introduction to the modeling of Dynamic Stochastic General Equilibrium (DSGE) models. The course will carefully familiarize you with the basic concepts of modern business cycle theory. In particular, an introduction to macroeconomic modeling and estimation with Dynare will be given.</p> <p>Specifically, we will analyze how the representative household shapes its consumption planning, investment decisions and labor supply decisions. The second section focuses on the corporate sector. In particular, entrepreneurial action in the form of optimal production plans is analyzed. The third section analyzes the central bank and its tasks in the economic cycle. Here it is shown how central bank policy affects the behavior of households and companies.</p> <p>The work required to obtain ECTS points is typically done as part of an assignment that students complete during the semester.</p>		
Intended learning outcomes		
<p>The course offers analytical tools designed to solve DSGE models. These analytical skills encompass:</p> <ul style="list-style-type: none"> <li>• Solving of intertemporal optimization problems (e.g., consumption Euler-equations).</li> <li>• Linearization methods (e.g., Taylor-expansions).</li> <li>• Solving linear difference expectations by minimum state variabel techniques (MSV-solution).</li> <li>• Basic time series concepts such as impulse response functions, variance decompositions.</li> <li>• Insights in MATLAB/ Dynare programming: specifying, solving and estimating DSGE models.</li> </ul> <p>Based on the course students are able themselves to design and implement DSGE models.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
V (2) + Ü (2)		
Module taught in: English		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages) Language of assessment: English Assessment offered: In the semester in which the course is offered creditable for bonus</p>		
Allocation of places		
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Additional information		
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Workload		
150 h		
Teaching cycle		
Teaching cycle: winter semester		

**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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**Module appears in**

Master's degree (1 major) International Economic Policy (2025)  
Master's degree (1 major) Management (2025)  
Master's degree (1 major) China Business and Economics (2025)  
Master's degree (1 major) China Language and Economy (2025)