Computational Economics - Advanced Level

Module title
Computational Economics - Advanced Level

Abbreviation
12-M-NGM-132-m01

Module coordinator
holder of the Chair of Public Finance

Module offered by
Faculty of Business Management and Economics

ECTS
5

Method of grading
numerical grade

Duration
1 semester

Module level
graduate

Other prerequisites
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Contents

Description:
This course will mostly be concerned with the analysis of public policy (in areas such as taxation, social security etc.). Providing students with state-of-the-art techniques for quantitative macroeconomic research in this very field and familiarising them with the relevant literature, this course will teach students how such policies redistribute between different generations and also within generations, how they may improve risk sharing when markets are incomplete and how they can trigger distortions and therefore hurt the aggregate economy.

Outline of syllabus:
1. Programming with FORTRAN and application of numerical methods
2. Solution techniques for dynamic programming problems
3. The overlapping generations model (OLG) with uninsurable income risk
3. Policy analysis in the stochastic OLG model

Reading:
Lecture notes will be provided.

Intended learning outcomes
After completing the course "Computational Economics - Advanced Level" students will be able to
(i) edit and solve stochastic economic problems using advanced numerical techniques;
(ii) implement small scale economic models on the computer;
(iii) simulate tax and social security policy reforms and interpret the quantitative results in economic term.

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

Method of assessment
a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages)
Language of assessment: German, English

Allocation of places
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Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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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)