The course on “Integrated land use modelling” took place at BOKU Vienna between 24. - 28. April 2017. It was a five-days course capturing many aspects in quantitative integrated land use modelling using GAMS (see course outline). 10 students have participated the course coming from several countries. Students finishing the course have received 3 ECTS points. The course was offered by BOKU and the Doctoral Certificate Program in Agricultural Economics (https://www.agraroekonomik.de/index.html).

Course outline: Integrated land use modelling, 24.-28.4.2017, BOKU Vienna

Venue: Guttenberghaus, Feistmantelstrasse 4, 1180 Vienna, Room U1/11 (ground floor)

When?		What?	Who?
Mo 24.4.	10:00-12:00	**Welcome and introduction** **Introduction to GAMS and mathematical programming** • Concept of homogenous response units • Generic model development	Erwin Schmid
	13:00-17:00	• Organization of data transformation, processing and model integration • Linking and analysing bio-physical and economic land use data • Farm/ bottom-up regional land use modeling	Erwin Schmid
Tu 25.4.	9:00-12:00	**Introduction to integrated land use modelling** • Model types, research aims and contexts • Typical structure of integrated quantitative land use studies • Model linkages and interfaces	Martin Schönhart
	13:00-17:00	**Integrated modelling – applications with GAMS**	Erwin Schmid
We 26.4.	9:00-12:00	**Sensitivity and uncertainty analysis** • Basic concepts of sensitivity analysis in quantitative land use modelling	Mathias Kirchner
	13:00-17:00	• Monte Carlo Simulation • Surface Response Function Estimation • Use of grid-computing facilities	Mathias Kirchner
Th 27.4.	9:00-12:00	**Scenario Development** • Representative Concentration Pathways (RCPs) • Shared Socio-economic Pathways (SSPs) • Price, market, policy forecasts/projections/baselines **Integrated land use indicators** • Economic indicators • Biotic and abiotic environmental indicators • Landscape assessment **Crop rotation modelling**	Martin Schönhart
	13:00-17:00	**Stakeholder participation in land use modelling** • Transdisciplinary theory • Modelling with stakeholders • Stakeholder communication	Hermine Mitter
Fr 28.4.	9:00-13:00	**Price endogenous land use modelling, Discussion of dissertation projects of students**	Erwin Schmid