Course: Earth System Modelling and Management (ESMM)

Lecturers: Kr: Kropp, St: Sterzel, Co: Costa, Gr: Grothmann, Hu: Hustedt

Target Groups: Natural, Environmental and Social Sciences

Requirements: BSc., also all PhD students of the PROGRESS research network

Week I

	Mon	Tue	Wed	Thu	Fri
Day Theme	**Basic Foundations of Climate Sciences**	**International frameworks and how science deals with them**	**Climate Sciences at the Policy/Science Interface**	**Impact Research in Practice**	**Bridging the Gap between Science and Practice**
9:00-10:30h ct	Bertalanffy, Wiener, Feigenbaum, Luhmann: Can systems theory bridge the gaps between disciplines (Kr)	The UNFCCC Approach for International Climate Agreements (Kr)	The role of social sciences in global change research: a social science view (Hu)	How to analyse of man-environment interactions systematically? (St)	Geographical Information Systems: How they work and main features (St)
10:30-12:00h ct	Earth as a system (Kr)	The climate crisis and the scenario approach of the IPCC (Kr)	The role of natural sciences in global change research: a natural science view (Kr)	Earth Systems Analysis: Integrated Assessment (Kr)	Example Applications of GIS systems I (Co)
Lunch					
13:00-14:30h ct	Foundations of Climatology (Kr)	Burden sharing & Fairness/Budget approaches (Co)	Climate Change as a policy problem in national contexts (Hu)	Vulnerability concepts in climate, social and risk management sciences (Gr)	Example Applications of GIS systems II (Co)
14:30-16:00h ct	How climate modelling works (model concepts, projections vs. forecasts, uncertainties) (Kr)	The challenge of sustainable transitions: needs and barriers (Co)	State of the art of climate impact research: can it support decision making (Kr)	Climate Change Adaptation and Mitigation: where we stand? (Gr)	Discussions: Review of the first week/perspectives of the second (all)
16:00-17:00h	Time for disussions	time for discussions	time for discussions	time for discussions	