

Dr. Roger Cremades
Summer Term 2019

Block Lecture / Seminar The Economics of Climate Change

for Master of Economics Students (ISNE & E&P)
The course is held in English

Requirements	Interest in interdisciplinary research
Time & Location	<p>Block lectures: 10.5.2019 10.00 – 12.00 : HS 1009 10.5.2019 12.00 – 18:00 : HS 3042 11.5.2019 10.00 – 18:00 : HS 3042 25.5.2019 10:00 - 18:00 : HS3042</p> <p>Seminar Presentations: 25.5.2019 10:00 - 18:00 : HS3042</p>
Registration	<p>Lecture: Attendance to all sessions (10.5, 11.5, 25.5) is compulsory. Registration form provided during the lectures.</p> <p>Seminar: Send application before April 9 to mep@vwl.uni-freiburg.de Please include your transcripts and a very short statement of motivation</p>
ECTS	<p>Lecture: 6 ECTS Internal Elective for E&P and ISNE</p> <p>Seminar: 6 ECTS Internal Elective for E&P and ISNE</p>
Examination	<p>Lecture: Exam at date TBA</p> <p>Seminar: Submission seminar paper: 19.5.2019 Presentation 10:00 to 18:00 : HS3042</p> <p>Attendance and active participation at all sessions is required for both Seminar and Lecture participants</p>

Outline:

1. The Physical Science Basis: the Earth system, biogeochemical dynamics; climate models and projections; climate extremes, risk, resilience; the role of humans in Earth system dynamics, Anthropocene.
2. The Economics of Adaptation to Climate change: risk, exposure, vulnerability, climate impacts across sectors, adaptation, economic analysis of case studies across sectors; the insurance industry; loss and damage.
3. Information and Decision Making for Adaptation: climate data and climate services, decision-making under uncertainty, using long-term climate information in decision-making, climate information and risk management.
4. The Economics of Mitigation of Climate change: greenhouse gases, economic sectors, economic analysis of case studies across sectors; pros and cons of integrated assessment models; financing mitigation; carbon taxes and emissions trading.
5. Complex Networks and Climate Change Economics: network dynamics in carbon markets, network approaches to economic evaluation of climate policies, financial networks and climate-related stress testing, networked risks in climate transitions.