

FACOLTÀ	Scienze Politiche
ANNO ACCADEMICO	2013/2014
CORSO DI LAUREA MAGISTRALE_LM63 interateneo	SVILUPPO SOSTENIBILE DELLE ORGANIZZAZIONI PUBBLICHE E PRIVATE Descrizione Curriculum: MANAGING SUSTAINABLE DEVELOPMENT IN PUBLIC AND PRIVATE ORGANISATIONS
INSEGNAMENTO	Computer simulation models and organizational decision-making
TIPO DI ATTIVITÀ	Caratterizzante
AMBITO DISCIPLINARE	Processi decisionali ed organizzativi
CODICE INSEGNAMENTO	14137
ARTICOLAZIONE IN MODULI	no
NUMERO MODULI	
SETTORI SCIENTIFICO DISCIPLINARI	IUS/09, SPS/01, SPS/04
DOCENTE RESPONSABILE	Andreas Grossler Professore Associato Università di Njmegen
CFU	6
NUMERO DI ORE RISERVATE ALLO STUDIO PERSONALE	108
NUMERO DI ORE RISERVATE ALLE ATTIVITÀ DIDATTICHE ASSISTITE	42
PROPEDEUTICITÀ	nessuna
ANNO DI CORSO	II
SEDE DI SVOLGIMENTO DELLE LEZIONI	Università estera
ORGANIZZAZIONE DELLA DIDATTICA	Lezioni frontali, Esercitazioni in aula, Esercitazioni in aula informatica, redazione di un progetto
MODALITÀ DI FREQUENZA	Obbligatoria
METODI DI VALUTAZIONE	Prova Scritta, Presentazione di un progetto
TIPO DI VALUTAZIONE	Voto in trentesimi
PERIODO DELLE LEZIONI	Primo semestre
CALENDARIO DELLE ATTIVITÀ DIDATTICHE	Vedi sito università
ORARIO DI RICEVIMENTO DEGLI STUDENTI	Vedi sito università

1. Course Description

Computer simulation models and organizational decision-making Level: graduate; 6 ECTS points.
The course is conducted entirely in English.

2. Learning Outcomes

Knowledge and understanding

The role of models in policy processes and the concepts of organisational interventions with system dynamics will be discussed.

Applying knowledge and understanding

Students are able to transfer the knowledge and understanding they have acquired in this course to other fields of the social sciences. In addition, methods, that are discussed, can be used in various settings and in combination with different approaches. These methods are meant to handle complexity in organisational problem contexts.

Making judgements

Students learn to assess the usefulness of different methods for different problems in organisations. Further, they can reflect on the principle embedding of system dynamics in the social sciences.

Communication

Students can present and discuss relevant facilitation techniques. They are able to communicate with other forms of communication as well, for instance, writing summaries, visualisation of content, or reviewing papers.

Learning skills

By a high share of individual assignments (together with feedback from teachers), students will be enabled to acquire all skills that are necessary to self-study further literature on the subject and acquire information about new facilitation techniques.

3. Course Content

- ^ The nature of policy and decision making and the role of (scientific) knowledge
- ^ The “implementation issue”
- ^ models of knowledge dissemination and types of knowledge use or impact
- ^ history of the use of computer models in policy and decision making processes
- ^ History of system dynamics and the connection to Operations research
- ^ Computer models and decision support
- ^ Modelling as (organizational) learning
- ^ Modelling as intervention: action research
- ^ Comparison of different modelling techniques
- ^ The concepts of validity and utility
- ^ Stakeholder analysis

4. Course Design

The course is comprised of lectures, case studies, and students’ presentations. An 80% attendance rate in sessions is required; students have to engage actively in class discussions. Assessment is carried out by means of individual and of group assignments.

5. Students’ evaluation

An ECTS grade is provided to the student at the end of the course according to the A—F scale. Students not successfully fulfilling all the course requirements within the regular time frame have the option of a re-sit once the following semester.

6. Course Admission Requirements

Admission to the course requires previous and regular enrolment in the European Master of System Dynamics programme (i.e., having completed the first semester in Bergen and the second semester in Lund or Palermo) or a completed Bachelor programme in Business Administration from Radboud University.

7. Literature

Größler, Andreas: System Dynamics Projects That Failed to Make an Impact, in: System Dynamics Review, 23/4 (2007), 437–452. Meadows, Donella and Jenny Robinson: The Electronic Oracle, 1985. Pidd, Michael: Computer Simulation in Management Science, 2006. Richardson, George: Feedback Thought in Social Science and Systems Theory, 1991. Roberts, Edward: Strategies for Effective Implementation of Complex Corporate Models. In: Roberts, Edward (ed.): Managerial Applications of System Dynamics, 1978, pp. 77-85. Sterman, John: Business Dynamics, 2000, chs. 1, 3, 21.

8. Further Information

Course Schedule

Week	Topic
1	1. Introduction to the course
	2. Decision making and complexity: cognitive and social
2	3. Decision making and the role of (scientific) knowledge
	4. Different modelling and simulation techniques
3	5. Computer models in the policy and decision making process
	6. Computer models and decision support
4	7. Modelling and simulation as organizational interventions
	8. Research and interventions, the role of action research
	9. Problem Structuring as action research
5	10. Modelling as a method for problems structuring, learning and consensus building
6	11. Intervention architectures
	12.
7	13. System dynamics as a structural theory
	14.

Two lectures per week plus tutorials are envisioned.