LEHRSTUHL FÜR STEUERUNG INNOVATIVER UND KOMPLEXER TECHNISCHER SYSTEME DR. SOFIA PAGLIARIN

Lehrveranstaltungen SS 2021

Seminar:	**Transitions to Sustainability: Concepts and policies for system change**

Room:	Online (Zoom)
Time:	Wednesdays, 16:00 – 18:00 s.t.
Start:	14. April 2021

Course Description

We are currently living in a climate crisis. Policy responses are urgently needed, as we are witnessing the first climate migrants and as the Fridays for Future movement is filling our streets. However, sustainability as a concept has been around for some decades already. A number of key international reports (e.g. 'Limits to Growth' in 1972) have paved the way for the implementation of sustainability and sustainable development. Many bottom-up (e.g. Transition Towns) and institutional (e.g. Local Agenda 21) initiatives and movements have been informed by sustainability as a concept. The goal was to reach a system change that would realise sustainability in our ways of consuming, producing and living. However, this has not happened yet.

In the attempt to find a solution to this, scholars have recently started to pay attention to the concept of 'transition': how can we stimulate effective pathways to transition towards sustainability? Transitions are multiple, alternative roads towards a more sustainable future conceived in terms of a system change. This course is about the role – and the responsibility - of actors in transitioning towards sustainability and how we can practically foster effective 'recipes' for transition. The approach of this course is interdisciplinary, as we will use contributions from political science, environmental economics, system thinking, sociology, critical geography, innovation studies, policy analysis and strategic management.

This course is structured in two parts. In the first part, we will discuss the concept of sustainability and ecological footprint and focus on the role of actors (consumers, industries, states), also under the light of the concept of 'environmental citizenship'. We will also critically discuss the role of technology in transitions towards sustainability.

The second part of the course is about the role of cities for reaching sustainability, in particular through the concept of smart and sustainable cities (SSCs). We will focus on this topic also because Bamberg is part of the 'smart city program' in Bavaria

(https://www.stadt.bamberg.de/smartcity) and the University of Bamberg plays an active role in the implementation of this program through the Smart City Research Lab (https://www.uni-bamberg.de/news/artikel/universitaet-unterstuetzt-smart-city/). In the second part of the course, we will critically look at the implementation and analysis of smart and sustainable cities (SSCs).

The learning goals of the course are the following:

- To understand and discuss some key concepts defining sustainability
- To understand the usefulness of a system thinking perspective in sustainability
- To understand the role of actors and technologies in transitioning towards sustainability (transition studies / Transitionsforschung, policy mixes)
- To be able to work in groups
- To examine one/some cases of smart and sustainable cities and derive policy recommendations to be practically implemented (in Bamberg, but in case other cities are possible)

Course Evaluation:

The final grade is composed as follows: 25% of the grade from the presentation in class following PBL (see below) and 75% of the grade from the term paper (also called 'project proposal' in this course) for smart and sustainable cities that you will develop in groups and that you will have to submit. Please note: the term paper is group work, so you will have to develop your abilities to work in team (min. 3, max. 4 people per group). The grade you will get for the project proposal is a group grade. The PBL-based presentation can be done individually or in pairs, according to the number of participants enrolled to the course. Therefore, for the PBL presentation you might get an individual or a group grade.

Course structure:

The course, as well as the reading material, is taught in English. Lectures are structured on participation and discussion following Problem-Based Learning (PBL). For more information about PBL, please see our Pinboard: https://vc.uni-bamberg.de/course/view.php?id=42243, as well as the information included in the Syllabus.

The session scheduled for 23rd June 2021 will take place as 'diffuse class': you are invited to attend to at least one of the lectures or activities proposed during the Nachhaltigkeitswoche (NaWo) at the University of Bamberg: https://www.uni-bamberg.de/nachhaltigkeit/nawo/nawo-2021/. You will also have to informally report in class your impressions and the main take-home-message(s) you got from the event you took part in during the NaWo.

Course type:

The course will be taught online via Zoom. Please register on the VC and through FlexNow to keep regularly updated about the course. To access the course 'Transitions to

Sustainability: Concepts and policies for system change', please use the following information:

https://uni-bamberg.zoom.us/j/93153074254

Meeting ID: 931 5307 4254 ; Passcode: F#+5wx

For group work, you will have to autonomously organise meetings (either online or face-to-face, if allowed by the regulations) to work on your group project proposal.

Course literature:

The reading material will be provided in digital form on the VC, except for the book by Meadows, D. H. (2008). Thinking in systems: A primer. White River Junction VT: Chelsea Green, which students should get ahead of the start of the course. Please note: the reading material usually ranges between 30 to 50 pages so please organise yourself in advance to come prepared to class.

Course Syllabus:

The Syllabus of the course will be circulated in due time.

Sprechstunde:

Wednesdays, 14:00-16:00 via MS Teams (also by appointment)

Mail:

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