

# Co-producing knowledge in transdisciplinary research - From practice to theory

Two PhD courses for 2018–19 at Urban Futures Open Research School, 2x7.5 ECTS  
Organised by Mistra Urban Futures/ Chalmers  
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Sustainable urban development is one of the greatest challenges of our time. Cities face the challenges of changing climates, large demographic changes, stressed relationship with hinterlands, complex governance structures and increased segregation. The Sustainability Development Goals (SDG) have been set out by the UN in order to reduce social inequalities worldwide, which also puts the cities under deep pressure, as the highest income layers correlate with unsustainable living patterns. An integrated approach to address these challenges is necessary, and an overarching question for sustainable development becomes: how do we also realise just cities?

To reach knowledge about a process of change towards a just and sustainable society, new research approaches are emerging. These innovative approaches take place out of necessity but also as part of an intentional qualitative transformation of the research process itself. Co-produced research is such an emerging approach, addressing the complexity of societies' transformations by integrating different research actors into the same creative process. The outcome is a new kind of research. First, it is transdisciplinary and developed in the emerging fields between disciplinary spaces. Second, it aims to be transformative, meaning changing present patterns of behaviour into more just and sustainable forms.

## AIMS

This course, divided into two parts (2x7,5 ECTS), is directed for you who are dealing with so called 'wicked urban problems' in your daily practice or who aim to address such current and future urban challenges in your PhD research, and who see the urgency for a transdisciplinary approach in your practice. This course gives insight into urban dilemmas from both practice and academic research perspectives and provides tools and methods for transdisciplinary research. Further it will introduce and address the notion of the transdisciplinary research as boarder management, and will discuss a possible redefinition of the role of the researcher and practitioner in such collaborative processes. Finally, the full course offers insights into transdisciplinary theory and discusses what normative research means for science as well as the specific epistemological and methodological implications transdisciplinary experiences have for both research and practice. The course will be organised around lectures, seminars and method-based workshops. Group-work will be the dominant working mode. However, an individual examination assignment will conclude each semester.

## COURSE CONTENT

The full course (fall+ spring) is divided in four modules (two modules per course).

These are:

- Module 1: Challenges and holistic thinking for the urban future. (fall)
- Module 2: Research practice and methods for transdisciplinarity. (fall)
- Module 3: Facilitation and border management. (spring)
- Module 4: Transdisciplinary theory and emerging epistemology. (spring)

## TENTATIVE COURSE PROGRAMME

### **Part 1. Solving wicked problems within sustainable urban development – experiences and methods. Fall 2018**

- *Module 1 – Challenges and holistic thinking for the urban future.*

Tackling wicked problems: Through the transdisciplinary imagination  
 Co-producing knowledge for sustainable cities: Joining forces for change  
 Creating a common goal: Realising just cities  
 How to reach the SDGs?  
 The art of long term thinking – developing scenarios for urban futures

- *Modul 2 – Research practice and methods for transdisciplinarity.*

Research practice – from action research to co-production  
 A systems thinking approach to holistic cities  
 Designerly thinking as a research approach  
 Visualisation and mapping – images for change  
 Reflexive methods

- *Presentation – Evaluation*

### **Part 2. Facilitation and knowledge development through co-production. Spring 2019**

- *Module 3 – Facilitation and border management.*

The hybrid role of the TD-researcher: Researching with communities.  
 Facilitation and boundary management.  
 Transkillery: What skills are needed to be a boundary crosser?  
 Prototyping: Creating sites of construction.

- *Module 4 – Transdisciplinary – theory and emerging epistemology.*

The role of theory in transdisciplinary research  
 Reflexivity and knowledge production  
 A normative perspective on the boarder of politics and research: How do we deal with this in research?  
 The relation of transdisciplinary research to basic and applied science.  
 Approaches to evaluating transdisciplinary research.

- *Presentation – Evaluation.*

## LEARNING OUTCOMES

After completion of the course, the student is expected to be able to:

### *Knowledge and understanding*

- understand the complexities of urban challenges;
- be familiar with concepts of justice within the urban environment;
- apply knowledge on border management;
- understand transdisciplinary theory and relevant design theory, and able to position the individual research processes into a theoretical context.

### *Competence and skills*

- design a transdisciplinary research project;
- to practice a set of methods applicable in TD-research;
- apply skills for facilitation of boundary projects.

### *Judgement and approach*

- evaluate and compare methods for transdisciplinary research;
- evaluate the scientific and practical impact of transdisciplinary approaches to urban problem solving in different substantive areas.

## COURSE DESIGN

Each course is set up as two modules. Each module contains two meetings during two days and a half days, with an interval of three or four weeks. All participants also need to join the final Presentation – Evaluation day at the end of each course.

### Set-up of a meeting (half module)

Day 1:

Morning           Lecture + seminar/ shorter workshop with academic researcher or practitioner.  
 Alternatively students presentations.

Afternoon       Lecture + seminar/ shorter workshop with academic researcher or practitioner.

Day 2:

Morning           Lecture + Intro workshop by external workshop leader.

Afternoon       Supervised workshop in groups.

Day 3:

Morning           Reserved time for voluntary groupwork without supervision.

In between each meeting, the students conduct group-based or individual work and reading of teori. The total amount of workhours is equivalent of 7,5ECTS.

## COURSE LANGUAGE

The course will be performed at the 'language spoken in the room', i.e Swedish or English depending on the participation at each moment.

## COURSE DATES

### Dates fall 2018

Module 1a: 5–7<sup>th</sup> September

Module 1b 2: 26–28<sup>th</sup> September

Module 2a: 17–19<sup>th</sup> October

Module 2b: 14–16<sup>th</sup> November

Presentation/ evaluation: 13<sup>th</sup> December (morning +final lunch)

### Dates spring 2019

Module 3a: 13–15<sup>th</sup> of February

Module 3b: 6–8<sup>th</sup> of March

Module 4a: 27–29<sup>th</sup> of March

Module 4b: 16–18<sup>th</sup> of April

Presentation/ Evaluation: 9<sup>th</sup> May (morning +final lunch)

## ENTRY REQUIREMENTS

In order to be eligible for the course the applicant must fulfil and prove the general entry requirements for postgraduate studies i.e. a master's degree or equivalent (*copy of diploma*). Each applicant should also send in a *short letter of motivation*, describing his/hers interest for co-production within the urban context. A *CV* is also required.

## EXAMINATION (GRADES)

For examination, participation at lectures, in seminars and workshops (80%) is required. A final exam assignment is written individually towards the end of each course. The participation at final Presentation – Evaluation is compulsory. The grading scale comprises Pass (G) and Fail (U). If attaining a pass degree, participants will receive a written certificate.

## COURSE EVALUATION

The course concludes with a compulsory written and oral course evaluation.

## LAST DATE FOR APPLICATION

27<sup>th</sup> of May (for fall course 2018)

3<sup>rd</sup> of December (for spring course 2019)

## LITERATURE

Required readings will be listed as part of the detailed schedule which will be sent out two weeks in advance of each course start. Reading material will be available at the course's digital platform.