

## Research design

number of credits: 3.0 HECs

### Aim

“Everyone who conducts research is making assumptions about the nature of the world and how knowledge is generated”. The aim of the course is to make PhD student aware of different types of research methods and how to build up research methodology (the process of research) along with the ontological, and epistemological assumptions. The course gives the opportunity to develop or critically evaluate a research design of student’s own project. The students will get a feedback from the colleagues and from the teachers. The course will hopefully bring together students with different theoretical perspectives coming from both engineering and architecture divisions/research groups. The course could then contribute to a better understanding of different perspectives and create a fertile ground to interdisciplinary developments.

### Intended learning outcomes

- to be aware of different philosophical and methodological approaches in natural science, social science and design discipline leading to knowledge production of different kinds
- to become familiar with the logic of interdisciplinary approach and transdisciplinary approach
- to expand knowledge about the landscape of various research paradigms
- to be able to examine and argument for the chosen research design

### Content

The following topics will be covered:

- Ontology (of science, of social science, of design disciplines) – nature of reality
- Epistemology (of science, of social science, of design disciplines) – nature of knowledge
- Methodology (the process of research: deductive, inductive, abductive)
- Methods and techniques (quantitative, qualitative, mixed)
- Research Paradigms in practice - the module will deal mostly with the paradigms supporting the theses of the students participating in the course.
- Communicating the research design of a project graphically and in a text, receiving a feedback
- Discussing the projects of other students, giving a feedback

### Assessment

Obligatory participation at the sessions

To successfully complete the module, PhD student should elaborate on the chosen research paradigm and the research design of the doctoral project.

### Language

English

### Admission requirements

To qualify for this module one should be at least 1 year into a PhD program. Moreover, one needs the methodology chapter to be developing/reviewing/discussing.

### Running schedule

The course is planned to take place in a hybrid mode (campus/zoom) at the following occasions:

The 26<sup>th</sup> of October at 10.00 – 17.00 preferably on campus or hybrid

The 27<sup>th</sup> of October at 9.00 – 16.00 preferably on campus or hybrid

The 16<sup>th</sup> of November at 9.00 – 17.00 according to your preferences

The 7<sup>th</sup> of December at 11.00 – 17.00 according to your preferences

Literature  
to be given

**Connection to other courses**

The course constitutes the introductory element of the methodological platform “Research approaches at ACE” being developed at ACE. It can be also treated as a not obligatory prerequisite for the different kinds of courses dealing with specific research methods and tools.

**Teachers and examiner**

Krystyna Pietrzyk, teacher/examiner  
Martine Buser, teacher