AG2126 Theory of Science and Research Methodology for Planning and Design 7.5 credits

Vetenskapsteori och forskningsmetod för studier om planering och urban design

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for AG2126 valid from Spring 2011

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

To be eligible for the course, a student should have completed at least 15 credits of the first semester of Masters program Sustainable Urban Planning and Design, or equivalent courses.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The aim of the course is to provide an overview of theories and methods in the field of planning and architectural research. It draws on the interconnections and differences of research fields as planning, urban theory, geography, architecture and urban design among others. The course provides the students with the necessary practical skills to use theories to develop their ideas, to choose suitable methods and to evaluate and present their results, as well in an academic as professional context.

After this course the students will be able to demonstrate their understanding of the research process by

- Formulating research proposals
- Designing a small-scale research project
- Choose suitable methods to answer their research questions
- Being able to defend their proposals
- Writing literature reviews and scientific texts
- Critically reflect on use and outcomes of theories and methods, and to discuss development of new knowledge

The student should also have sufficient knowledge of research theory, tradition and method to

- Identify what research tradition and method different works or discussions are based on
- Compare and critically discuss the strengths and weaknesses of different traditions and methods, and how different methods are employed within different traditions
- Reflect and argue on how the different knowledge traditions play into roles, arguments and approaches within practice

Course contents

1. Urban planning and design as an academic field

- Traditions in scientific thinking and modes of reasoning, introduction to history and traditions of natural sciences, social sciences, humanities, and arts and their role in the academic and practical field
- Concepts in science

2. Research methods

- Current research methodologies, their relevance and applicability
- Ways of structuring a research question and translating the theoretical question to an operational level

- Techniques of gathering and analysing data and source material
- Methods in research practice; including how the implementation of different methods traditions vary within different research traditions
- Translation of research methods into analytic methods within planning and design practice
- Research ethics

3. Scientific writing

- Writing as method of research
- Traditions and formats of scientific writing
- Literature search and literature reviews
- Referencing, designing tables and graphs
- Scrutinizing scientific text

Course literature

George & Bennett 2005 Case studies and theory development in the social science Cambridge, MIT Press

Grillner and Ståhl 2003 'Developing practice-based research in architecture and design:Sweden 2003' Nordic Journal of Architectural Research No1 2003

Groat & Wang 2002 Architectural Research Methods John Wiley & Sons

Hughes 2006 'The poetics of practice-based research writing'. The Journal of Architecture Vol 11, Issue 3 June 2006

Collection of articles giving examples on methods and the development of the theoretical development in the field of planning and architectural research.

Examination

- SEM1 - Seminars, 3.0 credits, grading scale: P, F
- PRO1 - Project Work, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Project (PRO1; 4,5 cr), Seminars (SEM1; 3 cr)

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.