



Sveriges lantbruksuniversitet  
Swedish University of Agricultural Sciences

# SLUkurs

## Syllabus

**PLG0045 Ethics and philosophy of science, 4.5 credits**

## Syllabus approved

2016-05-16

## Subjects

Other Social Science

## Education cycle

Third cycle

## Grading scale

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

## Language

English

## Prior knowledge

Admitted as PhD or licentiate student

## Objective, including learning outcomes

The aims of the course are to give an overview of central ideas and perspectives in the philosophy of science and different aspects of research ethics. The course will support the student's ability to reflect on these ideas and on the ethical implications

of own and others research. It will also give opportunity to reflect on the possibilities and limitations of science and its overall role in society.

#### Learning outcomes

After the course the student should demonstrate the ability to:

- describe and explain ideas and concepts in the philosophy of science and reflect on these related to the own research
- list and discuss similarities and differences in the overall perspective across different fields of research
- exemplify what possibilities and pitfalls there are at the intersection of science and societal decision making
- identify, describe and discuss codes of professional conduct and strategies for dealing with misconduct
- list and elaborate on topics in need of ethical considerations in research

#### Content

The course is based on lectures, exercises and seminars covering the following topics:

- What is truth and knowledge? What is the object of study?
- Ideas in philosophy of science: positivism and beyond e.g. social constructionism, postmodernism, empiricism vs rationalism and holistic vs atomistic perspectives, reflexivity
- Core concepts: Explanation and understanding, causation and correlation, hypothesis, falsification, sensitizing concepts, deduction/induction/abduction, validity/reliability/trustworthiness
- Science and society: The consequences of research, the function of scientific results in policy, societal discourse and policy making, multidisciplinary, interdisciplinary and transdisciplinary research, action research, research by/for design
- Professionalism, professional ethics and its theoretical underpinnings
- Scientific misconduct – fabrication/falsification, plagiarism, publication ethics e t c
- Research involving humans subjects – potential harm, informed consent, confidentiality e t c
- Research involving animals – ethical and legal aspects, relation to research ethics
- Relevant SLU policies and other guidelines, e.g. secrecy, management of research data.

**Requirements for examination**

The preparation for and participation at lectures and seminars with assignments handed in and approved.

**Additional information**

The course is scheduled between 8 November - 10 December.

**Responsible department**

Department of Biosystems and Technology