Kursnamn: Philosophy of natural science

Omfattning (högskolepoäng): 3 hp

ECTS credits

Tidsperiod: April 2018

Course period

Antal platser: 30

Maximum number of participants

Undervisningsspråk: English

Language of instruction

Kursens syfte samt motivering till varför den bör vara fakultetsgemensam (max 150 ord)

Aim of course and motivation as to why it should be considered “multidisciplinary” to the extent that the faculty should allocate extra financing.

In times when science is being beleaguered by fake news and alternative facts, scientists can no longer assume that the merit of their work is taken for granted. Instead, when the foundation of science is in question, we have to start reflecting over what philosophical principles that govern our work, and what separates facts from opinions and sense from sensibility. For a long time, the natural sciences have steered clear from such debate, and the students of the Faculty of Science and Technology have been able to rely on their affiliation as fundamental proof of the credibility of their work. Hence, they are less well prepared for the increasingly relativistic public debate, than, e.g., students from the humanities. In order to amend this, the course will give an introduction to the philosophy of the natural sciences, and, more importantly, give the participants the opportunity to reflect on their own research from a higher perspective and strengthen their confidence in their upcoming role as the champions of science.

Kursinnehåll, kursens uppläggnings samt examinationsform (max 150 ord)

Contents, study format and form of examination

The course is based on Thomas Kuhn’s book ”The structure of scientific revolutions” and is given as a series of lectures, seminars and group exercises. Even though guest lectures from the Department of History of Science and Ideas are included, the course will mainly be driven by the active participation of the students, which is important given the main objective of the course – to help them place their own research on a solid philosophical foundation. Examples of general questions that the students are expected to confront are: What is science’s in society? What distinguishes good science and good scientists? Is scientific progress achieved through many small steps or single big leaps? The examination will be formative and include active participation during all parts of the course and oral presentations of group exercise. The course will end with written examination, where the students are expected to reflect on their own research based on what they have learned.

Målgrupp/er (specifera ämnen/inriktningar) samt rekommenderade förkunskaper

Target group/s (specify, if possible, subject/specialization) and recommended background

Students that have reached about half way to their PhD.

Huvudansvarig institution: Department of Engineering Sciences
Department with main responsibility

Andra inblandade institutioner (specifiera hur).
Other departments involved (specify how).
Department of History of Science and Ideas (guest lectures)

Kontaktpersoner (namn, e-postadress)
Contact person (name, e-mail address)
Anders Persson, anders.persson@angstrom.uu.se

Anmälan om kursdeltagande till
Application from course participants should be sent to
Anders.persson@angstrom.uu.se

Senast 2018-01-31
Not later than

Kursen har tidigare givits (ange när) med deltagare (ange antal)
The course has previously been given (specify when and number of participants)