

Faculty of Arts and Social Sciences

Course syllabus

Reg.no. HS 2020/407

**Course Title:** Philosophy and Theory of Science for Doctoral Students

*Vetenskapsteori för doktorander*

**ECTS credits:** 4.5 credits **Education Cycle:** Third-cycle level **Third-Cycle Subject Area**:History

### Curriculum approval

The syllabus was approved by the Faculty of Arts and Social Sciences on 11 March 2020 and is valid from the spring semester 2020 at Karlstad University.

### Language of Instruction:

The language of instruction is Swedish and English. If there are students who does not speak Swedish, English will be the language of instruction.

### Qualification requirements

Admitted to doctoral studies. The course is primarily aimed at doctoral students at Karlstad University. Participation of other doctoral students is subject to availability.

### Learning outcomes

Upon completion of the course, the doctoral student should be able to:

* Explain and discuss key concepts in classical and current theory of knowledge
* Compare the perspectives of various schools of thoughts within theory of science.
* Assess the impact on research when implementing theory of science concepts and approaches.
* Reflect on the possibilities and limitations of science, its social dimensions and ethical consequences.

# Take a critical approach towards attitudes, procedures and thought patterns within the student’s own discipline and specific research area, when considering issues related to power structures and truth claims.

### Content

The course provides an introduction to the key concepts and traditions of the philosophy and theory of science. It is based on various perspectives on science, in light of contexts related to the history of ideas, from the traditional philosophical questions about the nature of knowledge to current scientific studies where the object of study is the social, cultural, financial, political and practical conditions of science. One of the themes is the theory of science of natural science, in the form of logical empirism, critical rationalism, paradigm theory and more recent orientations towards post-positivism and sociology of scientific knowledge. Another theme is the humanities’ and the health sciences’ hermeneutic and phenomenological traditions. The course also takes into consideration various forms of science critique from the Frankfurt School, through post-structuralism and feminism all the way up to post-humanism. This gives the foundation for reflecting on and assessing the student’s own research area’s possibilities and limitations.

The course is constructed around thematic modules which include lectures and examination seminars. The course concludes with a joint seminar where the doctoral students’ own texts are commented, defended and discussed.

# The doctoral students shall normally connect the examinations to their own research specialisation.

### Reading list

See separate document.

### Examination

The course is examined through individual written and oral assignments, based around participating in examination seminars. Absence from such seminars can be compensated for through additional assignments.

**Grades**

## One of the grades Pass (G) or Fail (U) is awarded in the examination of the course.

**Quality assurance**

## The course coordinators shall promote an ongoing dialogue about learning processes and goal attainment. A written evaluation is performed at the end of the course, in combination with a discussion of both the doctoral students’ and the teachers’ experiences regarding any relevant aspect that is brought up. The course evaluation is constructed by the course coordinators, in accordance with the Higher Education Ordinance, Chap. 1 Sect. 14.

### Course certificate

Course certificate is provided at the request of the doctoral student.

**Matrix of learning outcomes**

Outcomes met by a doctoral or licentiate student by the end of the course, is marked by an X.

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Doctoral** |  |  |  | **Licentiate** |  |
|  | **Knowledge and understanding** |  |  | **Knowledge and understanding** |  |
| 1a | Broad knowledge and systematic understanding of the research field |  | 1a | Demonstrate knowledge and understanding of the research field |  |
| 1b | Specialised and up-to-date knowledge in a limited area of the research field |  | 1b | Up-to-date specialised knowledge in a limited area of this field |  |
| 1c | Demonstrated familiarity with research methodology in general and the methods of the specific field of research in particular |  | 1c | Specialised knowledge of research methodology in general and the methods of the specific field of research in particular. |  |
|  | **Competence and skills** |  |  | **Competence and skills** |  |
| 2a | The capacity for scholarly analysis |  | 2a | Demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively |  |
| 2b | Demonstrate the capacity to review and assess new and complex phenomena, issues and situations autonomously and critically | X | 2b | Plan and use appropriate methods to undertake a limited piece of research and other qualified tasks within predetermined time frames in order to contribute to the formation of knowledge |  |
| 3a | Demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively |  | 2c | Demonstrate the ability to evaluate this work | X |
| 3b | Demonstrate the ability to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work |  | 3a | Demonstrate the ability in both national and international contexts to present and discuss research and research findings in speech and writing and in dialogue with the academic community and | X |
| 4 | Demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research |  | 3b | society in general | X |
| 5a | Demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and | X | 4 | Demonstrate the skills required to participate autonomously in research and development work and to work autonomously in some other qualified capacity. |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 5b | society in general |  |  |  |  |  |
| 6 | Demonstrate the ability to identify the need for further knowledge and | X |
| 7 | the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity. | X |
|  | **Judgement and****approach** |  |  | **Judgement and****approach** |  |
| 8a | Demonstrate intellectual autonomy and disciplinary rectitude as well as | X | 5 | Demonstrate the ability to make assessments of ethical aspects of his or her own research | X |
| 8b | the ability to make assessments of ethical aspects of his or her own research and | X | 6 | Demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and | X |
| 9 | specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used. | X | 7 | Demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning. | X |