Course description

Department/Unit /	KFI / FVHB			**Academic Year**	2023/2024	
Title	Philosophy of Science			**Type of completion**	Exam	
Accredited/Credits	Yes, 5 Cred.			**Type of completion**	Combined	
Number of hours	Lecture 2 [Hours/Week] Seminar 2 [Hours/Week]					
Occ/max	Status A	Status B	Status C	**Course credit prior to**	YES	
Summer semester	0 / -	8 / -	0 / -	**Counted into average**	YES	
Winter semester	0 / -	0 / -	0 / -	**Min. (B+C) students**	5	
Timetable	Yes			**Repeated registration**	NO	
Language of instruction	Czech			**Semester taught**	Winter, Summer	
Optional course	Yes			**Internship duration**	0	
Evaluation scale	1|2|3|4			**Ev. sc. – cred.**	S|N	
No. of hours of on-premise						
Auto acc. of credit	Yes in the case of a previous evaluation 4 nebo nic.					
Periodicity	K					
Substituted course	None					
Preclusive courses	N/A					
Prerequisite courses	N/A					
Informally recommended courses	N/A					
Courses depending on this Course	N/A					

Course objectives:

The aim of this course is to introduce students into basic problems of philosophy of science. Present them philosophical views in particular periods of historical progress. Present to the students most important authors, who from philosophical view researched the science and evaluate basic ideas and thesis, which influenced the progress of philosophy of science.

The course is scheduled once per two years.

Requirements on student

Credit: Active participation in seminars (home preparation for reading seminar texts, ability to analyze / interpret / interpret selected passage). Seminar paper analyzing selected work of philosophy of 20th century science and meeting the formal requirements of a professional text.
Examination: The exam is combined and verifies the knowledge of basic concepts of 20th century science philosophy and the ability to characterize their key representatives. The exam assumes home reading of 3 selected key philosophical works of the period.

Content

These topics will be focused: The myth, philosophy, science, philosophy of science. Renaissance and the origin of Modern Ages science. The relationship between philosophy, epistemology and methodology of science. Paradigm of classical science (Newton, Descartes). Disagreement of empirism and rationalism. Formalization of philosophy of science. Tradition of inductivism and empirism. B. Russel and Cambridge school, Bayesianism. Logical positivism and logical empirism. Problem of demarcation and problem of observation. Falsification and hypothetical-deductive method (K. Popper). Conventionalism (E. Mach, H. Poincare and P. Duhem). Constructional philosophy of science (H. Margenau). Operationalism (P. Bridgeman, A. Rapoport, B. F. Skinner). Methodology of scientific researching programs (I. Lakatos). Scientific revolution and paradigm (T. S. Kuhn). Methodological anarchism in science (P. K. Feyerabend).

Fields of study

Studenti mají k dispozici oporu ve formě skupiny/týmu v rámci systému Microsoft Teams.

Guarantors and lecturers

- **Guarantors:** Doc. PhDr. Vladimír Havlík, CSc. (100%)
- **Lecturer:** Doc. PhDr. Vladimír Havlík, CSc. (100%)
- **Seminar lecturer:** Mgr. Jitka Paitlová, Ph.D. (100%)

Literature

- **Basic:** Fajkus, Břetislav. *Filosofie a metodologie vědy : vývoj, současnost a perspektivy*. Vyd. 1. Praha : Academia, 2005. ISBN 80-200-1304-0.
- **Basic:** Kuhn, Thomas S. *Struktura vědeckých revolucí*. Praha : Oikoymenh, 1997. ISBN 80-86005-54-2.
- **Recommended:** Hempel, C. G. *Filosofie přírodních věd*. Červený Kostelec : Pavel Mervart, 2015.
- **Recommended:** Russell, Bertrand. *Logika, věda, filozofie a společnost*. 1. vyd. Praha : Svoboda-Libertas, 1993. ISBN 80-205-0219-X.
- **Recommended:** Popper, Karl Raimund. *Logika vědeckého zkoumání*. 1. vyd. Praha : Oikoymenh, 1997. ISBN 80-86005-45-3.
- **Recommended:** Zámečník, L. H. *Nástin filosofie vědy: empirické základy vědy v analytické tradici*. Brno : Host, 2015.
- **Recommended:** Carnap, Rudolf. *Problémy jazyka vědy*. Praha : Svoboda, 1968.
- **Recommended:** Feyerabend, Paul. *Rozprava proti metodě*. Vyd. 1. Praha : Aurora, 2001. ISBN 80-7299-047-0.
- **Recommended:** Toulmin, S. *The Philosophy of Science: An Introduction.*. New York : Hutchinson's University Library, 1953.
- **Recommended:** Godfrey-Smith, Peter. *Theory and reality : an introduction to the philosophy of science*. 2003. ISBN 0-226-30063-3.

Time requirements

All forms of study

Activities	Time requirements for activity [h]
Contact hours	52
Undergraduate study programme term essay (20-40)	40
Preparation for an examination (30-60)	38
Total:	**130**

assessment methods

Knowledge - knowledge achieved by taking this course are verified by the following means:

Combined exam

Skills - skills achieved by taking this course are verified by the following means:

Seminar work

Skills demonstration during practicum

Individual presentation at a seminar

Competences - competence achieved by taking this course are verified by the following means:

Combined exam

Skills demonstration during practicum

Individual presentation at a seminar

Seminar work

prerequisite

Knowledge - students are expected to possess the following knowledge before the course commences to finish it successfully:

to introduce basic characters and themes of classical epistemology

Skills - students are expected to possess the following skills before the course commences to finish it successfully:

to use the philosophical terminology of classical epistemology with understanding

to identify the problem (thesis) and reproduce the argumentation contained in the text

to use modern technologies, especially information databases

Competences - students are expected to possess the following competences before the course commences to finish it successfully:

N/A

N/A

N/A

N/A

teaching methods

Knowledge - the following training methods are used to achieve the required knowledge:

Lecture

Textual studies

Self-study of literature

Skills - the following training methods are used to achieve the required skills:

Skills demonstration

Seminar classes

Individual study

Students' portfolio

Competences - the following training methods are used to achieve the required competences:

Textual studies

Skills demonstration

Individual study

learning outcomes

Knowledge - knowledge resulting from the course:

to introduce basic figures and themes of 20th century science philosophy

to characterize the most important philosophical interpretations of science and explain their context

to summarize selected important philosophical writings of the 20th century philosophy of science

Skills - skills resulting from the course:

to analyze the source philosophical texts of the philosophy of science of the 20th century

to interpret selected passages of key texts of philosophy of 20th century science

to follow the arguments of particular authors or selected texts of the philosophy of science of the 20th century

to argue and discuss a specific topic of 20th century science philosophy

Competences - competences resulting from the course:

N/A

N/A

Course is included in study programmes:

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Humanities Studies	Bachelor	Full-time	Humanitní studia	1	22-2	2023	Povinně volitelné předměty-Humanitní studia pro informační společnost	B	2	LS
Humanities Studies	Bachelor	Combined	Humanitní studia	1	22-2	2023	Povinně volitelné předměty-Humanitní studia pro informační společnost	B	2	LS
Humanities Studies	Bachelor	Combined	Humanitní studia	1	23-1	2023	Povinně volitelné předměty-Humanitní studia pro informační společnost	B	3	LS
Humanities Studies	Bachelor	Combined	Humanitní studia	1	21-3	2023	Povinně volitelné předměty-Humanitní studia pro informační společnost	B	3	LS
Humanities Studies	Bachelor	Full-time	Humanitní studia	1	23-1	2023	Povinně volitelné předměty-Humanitní studia pro informační společnost	B	3	LS
Humanities Studies	Bachelor	Full-time	Humanitní studia	1	21-3	2023	Povinně volitelné předměty-Humanitní studia pro informační společnost	B	3	LS