

Module designation	Philosophy of Science
Semester(s) in which the module is taught	Odd and Even Semesters
Person responsible for the module	Prof. Budi Guntoro, Ph.D. Prof. Dr. Budi Prasetyo Widyobroto Prof. Dr. Sumadi Prof. Zaenal Bachrudin, PhD. Prof. Yuny Erwanto, PhD.
Language	Bahasa and English
Relation to curriculum	Study Program's compulsory
Teaching methods	Classical lecture and discussion
Workload (incl. contact hours, self-study hours)	Total workload: 79 hours Contact hours: <ul style="list-style-type: none"> - Lecture: 23 hours - Academic activity: 28 hours Private study: 28 hours
Credit points	2/0
Required and recommended prerequisites for joining the module	None
Module objectives/intended learning outcomes	<p>Course Outcomes (CO):</p> <ol style="list-style-type: none"> 1. Be able to know the history and development of science, a review of the classification of science, philosophy of science, the relationship between science and philosophy and systematic philosophy of science. 2. Be able to describe the development of science in ancient and medieval civilizations (Science in Greek, Roman, and medieval civilizations), Islamic civilizations, India, China and Japan; European civilization (re-creation of science in the Renaissance, Revolution in natural philosophy, nature of European science); revolutionary civilization (science during the industrial revolution, intellectual origins of the French revolution, romantic reactions and science); civilization maturation of the sciences (Science of the 19th, 20th centuries, and its problems and prospects). 3. Be able to explain the elements of scientific endeavor: empirical data and theoretical interpretation, empirical procedures of science, formal structures of science, conceptual change and development of science, movement of scientific thought, and philosophical status of scientific theory. <p>Expected Learning Outcomes:</p> <ul style="list-style-type: none"> - Mastery in Sciences: <ol style="list-style-type: none"> 1. Able to master the livestock production science, animal nutrition and fed science, animal products technology, and the livestock social economics in relation to food security and environment. (CO1, CO2, CO3) 2. Able to master the design, management, and development of livestock research. (CO3) - Special skills: <ol style="list-style-type: none"> 1. Able to make innovation in the animal husbandry based on the development of science and technology. (CO1, CO3)

	<ul style="list-style-type: none"> - General skills: <ol style="list-style-type: none"> 1. Able to communicate the result of reasoning and scientific research in form of thesis and scientific writing responsibly based on academic ethics in the accredited national journal. (CO2, CO3) 							
Content	<p>Philosophy of science and its development; dimensions of the study of the philosophy of science; knowledge, science and philosophy; types of knowledge; the role of the philosophy of science in the development of the scientific method; inductive and deductive thinking. The purpose of providing material with the above theme is to provide knowledge and implementation of philosophical thinking in the field of animal husbandry for postgraduate level 2 (S2) students. The main discussion in this course focuses on philosophical knowledge and its classification, philosophy of science based on its scope and position, development of philosophy of science and field discoveries according to its era as well as conceptualization and methodology of scientific theory. At the end of the lecture, the implementation of the philosophy of science is given in its use for the preparation of thesis designs. The whole discussion of the material, discussion and practice is intended to provide an understanding of the philosophy of science. Students must understand philosophy, science, philosophy of science and philosophical thinking patterns so that they are able to prepare the right research design.</p>							
Exams and assessment formats	Assessment Components		Course Outcomes (CO)		Percentage (%)			
	1. Midterm exam (written test, take home exam, paper assignment)		CO1, CO2 & CO3		25			
	2. Final exam (written test, take home exam, paper assignment)		CO1, CO2 & CO3		25			
	3. Group presentation		CO1, CO2 & CO3		35			
	4. Group discussion		CO1, CO2 & CO3		15			
	Grade and Score							
	Grade		Score		Grade		Score	
	A		≥80		C+		45-49,9	
	A-		75-79,9		C		40-44,9	
	A/B		70-74,9		C-		35-39,9	
	B+		65-69,9		C/D		30-34,9	
	B		60-64,9		D+		25-29,9	
B-		55-59,9		D		20-24,9		
B/C		50-54,9		E		0-19,9		
Study and examination requirements	<p>The final grade in the module is composed of 25% performance on Midterm exam, 25% final exam, 35% group presentation, 15% group discussion. Students must have a final grade of 70% or higher to pass.</p>							
Reading list	<ul style="list-style-type: none"> - Gie, T.L. 2012. Pengantar Filsafat Ilmu. Penerbit Liberty, Yogyakarta - Ihsan, H.A.F. 2010. Filsafat Ilmu. Penerbit PT. Rineka Cipta, Jakarta 							

	<ul style="list-style-type: none">- Komara, E. 2011. Filsafat Ilmu dan Metodologi Penelitian. Penerbit PT. Refika Aditama, Bandung- Ravertz, J.R. 1982. Filsafat Ilmu, terjemahan The Philosophy of Science. Oxford University Press. Diterjemahkan oleh S. Pasaribu. Pustaka Pelajar, Yogyakarta.- Susanto, A. 2011. Filsafat Ilmu. Penerbit PT. Bumi Aksara, Jakarta- Tim Dosen Filsafat. 2010. Filsafat Ilmu. Liberty, Yogyakarta- Anas, M dan I. Nukman. 2018. Filsafat Ilmu: Orientasi Ontologis, Epistemologis dan Aksiologis Keilmuan, Rosda, Bandung- Sumarna, C. 2020. Filsafat Ilmu: Mencari Makna tanpa kata dan mentasbihkan Tuhan dalam Nalar. Rosda, Bandung.
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