



**KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI**  
**UNIVERSITAS BRAWIJAYA**  
**FAKULTAS KEDOKTERAN**  
**PROGRAM MAGISTER ILMU BIOMEDIK**

Jalan Veteran, Malang 65145, Jawa Timur – Indonesia  
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## Teaching Plan

**Course Title** : Philosophy of Science  
**Course Code** : DKF6036  
**Credits** : 2  
**Course Coordinator** : Prof.Dr. dr. Edi Widjajanto, MS.,Sp.PK (K)  
 Phone: 0811368937

### Course Description

This course was designed with an overall goal is to provide a comprehensive understanding of the basis of science and the relationship between science with all aspects of human life. The philosophy of science is an integration of philosophy and science. The philosophy of science is the “science of science”. The basis of science includes basic concepts, basic assumptions, principles of initiation, structures of theory, as well as measures of truth.

### Course Learning Outcomes

On successful completion of this course students will be:		Bloom's Taxonomy
<b>CLO1</b>	Able to demonstrate a comprehensive understanding of the dynamics of philosophy of science	Level 2. Understanding
<b>CLO2</b>	Able to compile a discourse as the basis for the application and development-application of science and "create" new science, for the benefit of mankind.	Level 3. Applying
<b>CLO3</b>	Able to apply literature review and scientific writing	Level 3. Applying
<b>CLO4</b>	Able to communicate effectively and succinctly through oral presentation.	Level 3. Applying
<b>CLO5</b>	Demonstrate self-directed learning and ethical standards for the intellectual activities.	Level 3. Applying

### Links between CLOs and PLOs

	PLO1.1	PLO1.2	PLO2.1	PLO2.2	PLO2.3	PLO3.1	PLO3.2	PLO3.3	PLO3.4	PLO4
<b>CLO1</b>			√							√
<b>CLO2</b>			√							√
<b>CLO3</b>			√			√	√			√
<b>CLO4</b>			√			√	√			√
<b>CLO5</b>							√			√

### Topic and Schedule

Week	Topics	Competencies	Lecturer
1-2	Introduction of philosophy of science  Scientific paper <sup>#</sup>	Able to explain the philosophy in the context of philosophy of science  Able to apply literature review and scientific writing, as well as gain a comprehensive understanding of the discussed topic	EW
3-4	History of science development	Able to explain the science in the context of philosophy of science	EW
5-6	Basic of science study/review	Able to explain the principles of truth in the context of philosophy of science	EW
7-8	Methodology	Able to explain the methodology in the context of philosophy of science	EW
9-10	Scientific thinking	Able to apply scientific thinking in the context of philosophy of science	MAL
11-12	Science, technology, and culture	Able to explain the relationship between science, technology, and culture in the context of philosophy of science	MAL
13	Ethics of science	Able to explain the ethics of science in the context of philosophy of science	MAL
14	Academic honesty (Plagiarism)	Able to apply academic honesty	MAL
15	Oral presentation of	Able to communicate effectively and succinctly through oral	Team



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	scientific paper	presentation	
16	Final exam		Team

#**Assignment:** scientific paper entitled “The responsibility of **scientist\*** in exploring and expanding **the science\*\***”

Note: The scientist\* is the paper writer (the student); \*\* the science is the tentative thesis title of the student.

**Team of Lecturers:**

EW : Prof. Dr. dr. Edi Widjajanto, MS., Sp.PK (K)

MAL : Prof. Dr. dr. Muljohadi Ali

**Teaching and Learning Strategy**

Core material will be delivered through lectures followed by group discussions, completed with scientific paper and oral presentation.

**Assessment Methods**

Type	Weighting	CLO Assessed	Description
Scientific paper	30%	1, 2, 3, 5	Assessment is based on the rubric of a scientific paper, including content, reference, organization, and also language, presentation, and technical accuracy.
Oral presentation	30%	1, 2, 4, 5	Assessment is based on the technique of presentation, presentation materials, comprehensive knowledge of the material presented, and preparation of the presentation. The presentation lasts approximately 15 minutes followed by 15 minutes of discussion.
Written exam (final)	40%	1, 2, 5	The examination will be an essay on the discussed topics and a brief examination of knowledge on philosophy of science.

**Learning Sources**

<b>Essential reading/resources</b>	<ol style="list-style-type: none"><li>1. Tim Dosen Filsafat Ilmu UGM. 2010. <i>Filsafat Ilmu</i>. Edisi Kedua, Liberty Yogyakarta.</li><li>2. Hofmann, et al. 2007. Philosophy of Science: in Research Methodology in Medical and Biological Science.</li></ol>
<b>Further reading/resources</b>	

**Course Coordinator,**

**Prof. Dr. dr. Edi Widjajanto, MS., Sp.PK(K)**