



Universitas Negeri Surabaya
Faculty of Social and Legal Sciences,
Pancasila and Citizenship Education Undergraduate Study
Program

Document
Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																																																																			
Logic of Scientific Thinking	8720502080	Compulsory Study Program Subjects	T=2 P=0 ECTS=3.18	1	January 5, 2023																																																																																			
AUTHORIZATION	SP Developer		Course Cluster Coordinator	Study Program Coordinator																																																																																				
	Prof. Dr. Warsono, M.S., Agus Satmoko Adi, S.S., M.Si		Prof. Dr Warsono	Maya Mustika Kartika Sari, S.Sos., M.IP.																																																																																				
Learning model	Case Studies																																																																																							
Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																																																																							
	PLO-10	Able to carry out explanatory and predictive analysis and synthesis of social, political, educational and civic phenomena.																																																																																						
	PLO-11	Able to master the basic and theoretical concepts of citizenship, politics, law, social, humanities, state and nation as well as Pancasila values, morals and culture.																																																																																						
	Program Objectives (PO)																																																																																							
	PO - 1	Outlines the basic principles of scientific thinking																																																																																						
	PO - 2	Apply the basic principles of scientific thinking independently																																																																																						
	PO - 3	Carrying out a thesis, anti-thesis and scientific synthesis																																																																																						
	PLO-PO Matrix																																																																																							
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Short Course Description	The Logic course discusses how to think logically. To get there, the first thing to discuss is the function of language in logic, and about definitions. Then identify fallacies in reasoning, various propositions, hypothetical syllogisms, direct inference, syllogistic inference, and inductive inference. The thinking process receives serious attention, because the thinking process will result in a hypothesis and/or conclusion. Therefore we discuss the logic of deduction and the logic of induction. The learning method is carried out in a tutorial manner and after that exercises are carried out in each session.																																																																																							
References	Main :																																																																																							

1. Irving M Copi.1968. Introduction to Logic. New York: Harper.
2. Lanur Alex. 2012. Logika Selayang Pandang. Kanisius: Yogyakarta.
3. Soekadijo. 2001. Logika Dasar. Jakarta: Gramedia.
4. Warsono. 2012. Logika Berpikir Sehat. Surabaya: Unesa Press.

Supporters:

Supporting lecturer Prof. Dr. Warsono, M.S.
Agus Satmoko Adi, S.S., M.Si.

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline (offline)	Online (online)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Students know the course map for 1 semester. Students can explain procedures, assignments and assessment systems in the Logic course	Orderliness in lectures and readiness for each meeting	Criteria: 1.Very good 2.Good 3.Enough 4.not enough 5.very little Form of Assessment : Participatory Activities	Lecture pulpit Question and answer. Discussion 2 X 50			5%
2	Students can explain the scope of the material, objectives and benefits of logic in everyday life	Describes the background, scope, material, objectives and benefits of logic.	Form of Assessment : Participatory Activities	the pulpit lecture answered 2 X 50			5%
3	Students are able to explain the meaning, meaning, nature of logic and the function of language in logic.	Describe the meaning, meaning, nature of logic, and the function of language in logic.	Form of Assessment : Participatory Activities	the pulpit lecture answered 2 X 50			5%
4	Students are able to explain the function of definitions in logic.	Explain the function and purpose of the definition. Explain the types of definitions. Explains the methods and rules for making definitions	Form of Assessment : Participatory Activities	pulpit lecture practice 2 X 50			5%
5	Students are able to understand, recognize and detect errors in reasoning (fallacies).	Introducing and explaining what a fallacy is, the types of fallacy, and detecting the error, and explaining why it is wrong.	Form of Assessment : Participatory Activities	pulpit lecture questions answers practice 2 X 50			5%
6	Students are able to understand, recognize and detect errors in reasoning (fallacies).	Introducing and explaining what a fallacy is, the types of fallacy, and detecting the error, and explaining why it is wrong.	Form of Assessment : Participatory Activities	pulpit lecture questions answers practice 2 X 50			5%
7	Students are able to understand propositions and their various types.	Explains categorical propositions, conjunctive propositions, conditional propositions, disjunctive propositions	Form of Assessment : Participatory Activities	pulpit lecture questions answers practice 2 X 50			5%

8	MIDTERM EXAM		Form of Assessment : Test	2 X 50			15%
9	Students are able to understand direct inference.	Explaining inversion (complete and partial). Explaining conversion. Explaining obversion. Explaining contraposition. Explaining opposition	Form of Assessment : Participatory Activities	pulpit lecture questions answers practice 2 X 50			5%
10	Students are able to understand direct inference.	Explaining inversion (complete and partial). Explaining conversion. Explaining obversion. Explaining contraposition. Explaining opposition	Form of Assessment : Participatory Activities	pulpit lecture practice 2 X 50			5%
11	Students are able to understand syllogistic inference.	Explain deduction. Explain induction.	Form of Assessment : Participatory Activities	pulpit lecture questions answers practice 2 X 50			5%
12	Students are able to understand syllogistic deductive inference.	Explain syllogistic deductive inference	Form of Assessment : Participatory Activities	pulpit lecture practice 2 X 50			5%
13	Students are able to understand effective thinking	Explain lateral thinking. Explain vertical thinking.	Form of Assessment : Participatory Activities	pulpit lecture questions answers discussion practice 2 X 50			5%
14	Students are able to understand effective thinking	Explain lateral thinking. Explain vertical thinking.	Form of Assessment : Participatory Activities	pulpit lecture questions answers discussion practice 2 X 50			5%
15	Students are able to understand define problem solving.	Explaining problem solving models: creative thinking and logical thinking.	Form of Assessment : Participatory Activities	pulpit lecture, answer the 2 X 50 exercise			5%
16	FINAL EXAMS		Form of Assessment : Test	2 X 50			15%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	70%
2.	Test	30%
		100%

Notes

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills

- according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
 3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
 4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
 5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
 6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
 7. **Forms of assessment:** test and non-test.
 8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
 9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
 10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
 11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
 12. TM=Face to face, PT=Structured assignments, BM=Independent study.