	Universitas Negeri Surabaya Faculty of Mathematics and Natural Sciences Master of Science Education Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
School Science	8410102222		T=2	P=0	ECTS=4.48	1	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Dr. Eko Hariyono, S.Pd., M.Pd.

Learning model	**Case Studies**	
Program Learning Outcomes (PLO)	**PLO study program which is charged to the course**	
	Program Objectives (PO)	
	PO - 1	Develop science material according to the scientific field based on the applicable school curriculum through literature review
	PO - 2	Identify and solve science learning problems in schools from the aspect of science material, including misconceptions and student learning difficulties through studying science material through library studies or field studies
	PO - 3	Develop science materials in accordance with the school curriculum that can be used in science learning activities at school or to support science learning research activities at school

PLO-PO Matrix

P.O
PO-1
PO-2
PO-3

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PO-1																
PO-2																
PO-3																

Short Course Description	This course examines concepts/principles/laws related to school science, including the organization of living systems (cell focus), the organization of the human body (digestive system, respiratory system, circulatory system, excretory system, and regulatory system), ecology, pollution, and global warming, inheritance of traits and biotechnology, structure and function of plants and animals, motion and Newton's Laws of motion, energy, work, and simple machines including the skeletal-muscle system, photosynthesis, alternative energy, temperature, heat, and heat transfer, the laws of thermodynamics, including the thermoregulation system of living things, waves and sound including their use in the medical field, light and optical devices, electricity and magnetism, atoms, molecules, elements of compound solutions, additives, addictive and psychotropic substances, earth structure, disaster mitigation and response, universe (solar system, universe/cosmology). The assessment also includes potential misconceptions, efforts to overcome them, and alternative inquiries related to the concept/principle/law
References	**Main :**

	1. James Trefil & Robert M. Hazen. 2010. The Science (Integrated Approach). NY: John Wiley & Sons. 2. Campbell, Neil A, Jane B.Reece dan Lawrence G.Mitchell. 2003. Biologi. California: Benjamin Cummings 3. Chang, Raymond. 2005. General Chemistry the Essential Concepts Third Edition. USA: McGraw Hill 4. Giancoli, Douglas. 2014. Physics: Principles with Applications II Ed 7E. California: Addison-Wesley. 5. Tim. 2008. BSE IPA CTL Kelas VII, VIII, IX. Jakarta: Kemdikbud 6. Zubaidah, S., dkk. 2016. Buku Siswa IPA Kelas VIII dan IX. Jakarta: Kemdikbud 7. Widodo, W. dkk. 2016. Buku Siswa IPA Kelas VII. Jakarta: Kemdikbud.
Supporters:	
Supporting lecturer	Dr. Raharjo, M.Si. Prof. Dr. Wasis, M.Si. Prof.Dr. Wahono Widodo, 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	Describes the nature and scope of science, scientific inquiry	1.Explain the nature and scope of science 2.Describe investigations in science		Presentation and discussion 2 x 50 minutes	Coordination of lectures using WAG Synchronous via Zoom/gmeet Material, information and assignments can be accessed via Vinesa 2 x 50 minutes	**Material:** The Nature of Science, inquiry in science, observation and inference, measurement as part of observation. **References:**	0%
2							0%
3							0%
4							0%
5							0%
6							0%
7							0%
8							0%
9							0%
10							0%
11							0%
12							0%
13							0%
14							0%
15							0%
16							0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
		0%

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** abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities 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.