	Universitas Negeri Surabaya Faculty of Engineering , Undergraduate Culinary Education Study Program	Document Code

SEMESTER LEARNING PLAN

Courses		CODE	Course Family		Credit Weight			SEMESTER	Compilation Date
Research methodology		8321103038			T=3	P=0	ECTS=4.77	4	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	....	....	Dr. Hj. Sri Handajani, S.Pd., M.Kes.

Learning model	**Project Based Learning**

Program Learning Outcomes (PLO)	PLO study program which is charged to the course
	Program Objectives (PO)
	PLO-PO Matrix
	P.O
	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

Short Course Description	Description: Lecture material consists of the relationship between research activities in the dimensions and development of science and technology, research steps which include preparing the background of the problem, formulation of the problem, formulation of objectives and benefits, assumptions and development of theoretical studies, formulation of hypotheses, types and design of research, population and sample, data collection methods and development of data collection tools, data analysis methods, discussion of analysis results, drawing conclusions and suggestions. Design abstracts, reports and research articles.

References	Main :
	1. 1. Suharsimi Arikunto. 2010. Prosedur Penelitian (Suatu Pendekatan Praktek). Jakarta: Rineka Cipta.2. Sugiyono. 2011. Metode Penelitian Kombinasi. Bandung: Penerbit Alfabeta.3. Tuckman, Bruce W.. 1978. Conducting Educational Research. NewYork: Harcourt Brace Jovanovich Pub..4. Sudjana. 1995. Desain dan Analisis Eksperimen. Bandung: Tarsito.
	Supporters:

Supporting lecturer	Dr. Ir. Asrul Bahar, M.Pd. Dra. Lucia Tri Pangesthi, M.Pd. Dr. Hj. Sri Handajani, S.Pd., M.Kes.

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	Understand the relationship between research concepts and the development of science and technology	a. Differentiate the meaning of science and technology b. Explain how to gain knowledge c. Explain the meaning of research d. Explain the steps of the scientific method e. Formulate the role of research in the development of science and technology	**Criteria:** Score for each question: 20	Discussion presentation and question and answer 3 X 50			0%

2	Formulate problems that suit their interests and areas of expertise (1)	Formulate problems that suit their interests and areas of expertise (1)	**Criteria:** Each student submits a minimum of 3 research problems according to their interests and areas of expertise.	Discussion presentation and question and answer 3 X 50			0%
3	Formulate problems that suit their interests and areas of expertise (2)	a. Compile the background of the problem b. Develop problem identification c. Develop problem boundaries d. Create a problem formulation. Create research objectives and benefits	**Criteria:** Success in formulating the background of problem identification, problem boundaries, objectives and benefits of research.	Discussion presentation and question and answer 3 X 50			0%
4	Arrange theoretical studies according to the problem formulation	a. Explain the role of theoretical studies in research b. Identifying reference sources c. Develop a theoretical study framework by including writing appropriate quotations and writing a bibliography	**Criteria:** Students are able to compile theoretical studies according to the research problem formulation	Discussion presentation and question and answer assignment 3 X 50			0%
5	Understand hypothesis formulation	a. Explain the meaning of hypothesis b. Understand the types of hypotheses c. Identify errors that occur in hypothesis testing d. Explain how to test a hypothesis e. Analyzing the relationship between determining the level of significance and the level of acceptance of the hypothesis f. Explains research without a hypothesis	**Criteria:** Success in formulating research hypotheses	Contextual/Cooperative 3 X 50			0%
6	Understand how to determine the type and design of research based on the problems and/or research objectives formulated	a. Identifying the type of research b. Develop research designs (for experimental and correlational research)	**Criteria:** success in determining research design	Contextual/Cooperative 3 X 50			0%
7	Identify variables and formulate operational definitions of variables	a. Explain the meaning of research variables b. Identifying various research variables c. Identifying variables in research d. Explain the operational definition of variable e. Defining independent variables and dependent variables in experimental research	**Criteria:** Success in identifying research variables and operational definitions of variables	Contextual/problem based 3 X 50			0%
8	Sub Summative Exam		**Criteria:** Success in preparing Chapter I and Chapter II of the research proposal	3 X 50			0%

9	Identifying the problem of formulating action hypotheses and designing steps to test action hypotheses in PTK	a. Formulate problems in PTK b. Formulate action hypotheses c. Describe the cycle in PTK	**Criteria:** Success in identifying problems, formulating action hypotheses and designing steps to test action hypotheses in PTK	Contextual/problem based 3 X 50			0%
10	Determine the research subject or population and sample	a. Explain the meaning of pupation and sample b. Explain the various methods of sampling c. Determine the sample	**Criteria:** Accuracy in determining research subjects or sample population	Contextual/Problem based 3 X 50			0%
11	Identify data collection techniques and develop data collection tools that suit the problem and/or objectives (1)	a. Explain data collection techniques b. Determine data collection tools/instruments	**Criteria:** Accuracy in determining data collection instruments	Contextual/Problem Based 3 X 50			0%
12	Identify data collection techniques and develop data collection tools that suit the problem and/or objectives (2)	a. Develop data collection tools/instruments b. Explain the validity and reliability of data collection tools	**Criteria:** Success in developing research instruments	Contextual/Problem based 3 X 50			0%
13	Conduct descriptive analysis both quantitative and qualitative	a. Explain the various types of research data analysis b. Distinguish between quantitative descriptive and qualitative descriptive data analysis c. Determine the analysis of each research data	**Criteria:** Accuracy in determining research data analysis	Contextual/problem based 3 X 50			0%
14	Conduct inferential analysis (hypothesis testing)	a. Describe the meaning of inferential analysis b. Describe the various types of inferential analysis c. Carrying out relationship tests d. Do a different test	**Criteria:** Accuracy in determining research data analysis	Contextual/Problem Based 3 X 50			0%
15	Arrange discussions on the results of data analysis, draw conclusions and provide suggestions based on research results	a. Linking the results of data analysis with theoretical studies b. Linking the results of data analysis with previous research findings c. Draw conclusions d. Formulate suggestions	**Criteria:** Accuracy in explaining things contained in discussions and discussion of research results.	Contextual/Problem Based 3 X 50			0%
16	Final exams		**Criteria:** Success in preparing research proposals	3 X 50			0%

Evaluation Percentage Recap: Project Based Learning

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.