	Universitas Negeri Surabaya **Faculty of Engineering,** **Bachelor of Information Systems Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses		**CODE**	**Course Family**	**Credit Weight**				**SEMESTER**	**Compilation Date**
Research methodology		5720103030		**T=3**	**P=0**	**ECTS=4.77**		4	July 17, 2024

AUTHORIZATION	**SP Developer**	**Course Cluster Coordinator**	**Study Program Coordinator**
	....	....	I Kadek Dwi Nuryana, S.T., M.Kom.

Learning model	**Project Based Learning**

Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**	
	PLO-16	Able to make appropriate decisions in the context of solving problems in their field of expertise, based on the results of information and data analysis;
	PLO-26	Have expertise in evaluating, identifying system developments and carrying out system maintenance;
	PLO-30	Able to apply the basic principles of algorithms and computer science theory in modeling and designing computer-based systems in such a way as to demonstrate an understanding of the advantages and disadvantages of existing designs.
	Program Objectives (PO)	
	PO - 1	Students can write scientific papers or thesis proposals well in accordance with the study to be researched
	PLO-PO Matrix	

P.O	PLO-16	PLO-26	PLO-30
PO-1			

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																

Short Course Description	This course examines the types of research and the process of conducting research in the field of Informatics Systems, which consists of (1) basic understanding of research, (2) research process, (3) theoretical basis, framework for thinking and proposing hypotheses, (4) population samples, (5) measurement scales and research instruments, (6) data collection techniques, (7) data analysis, (8) interpretation of results, and (9) writing reports. This course is aimed at final year students who will or are currently taking a thesis. Apart from that, this course is also useful for students who will write a scientific paper or other similar research. This course examines the types of research and the process of conducting research in the field of Information Systems, which consists of (1) the basic understanding of research, (2) research process, (3) theoretical basis, framework for thinking and hypothesis submission, (4) sample population, (5) measurement scale and research instruments, (6) data collection techniques, (7) data analysis, (8) interpretation of results , and (9) report writing. This course is aimed at final year students who will or are currently taking a thesis. Apart from that, this course is also useful for students who want to write a scientific paper or other similar research. This course introduces various processes in conducting research in the field of informatics engineering. Data collection, technical observations and experiments and preparation of research reports. This course is aimed at final year students who will or are currently taking a thesis. Apart from that, this course is also useful for students who want to write a scientific paper or other similar research.

References	**Main :**	
	1. Peat, Jennifer. 2002. Scientific Writing-Easy When You Know How. BMJ Books. 2. Cargill, Margaret & OConnor, Patrick. 2005. Writing Scientific Research Articles. Wiley Blackwell. 3. Tim Unesa. 2010. Buku Pedoman Skripsi Teknik Informatika Unesa. Unipress	

	Supporters:	

Supporting lecturer	Dr. Yuni Yamasari, S.Kom., M.Kom. Aries Dwi Indriyanti, S.Kom., M.Kom.

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 types and varieties of research as well as examples of their implementation in the field	Students actively respond to the material provided by asking questions and discussing.		Lectures, questions and answers and solving 3 X 50 questions			0%
2	Understand the types and varieties of research as well as examples of their implementation in the field	Students actively respond to the material provided by asking questions and discussing.		Lectures, questions and answers and solving 3 X 50 questions			0%
3	Able to express the results of problem identification into a formula for which a solution will be sought	Students actively respond to the material provided by asking questions and discussing.		Lectures, questions and answers and solving 3 X 50 questions			0%
4	Able to express the results of problem identification into a formula for which a solution will be sought	Students actively respond to the material provided by asking questions and discussing.		Lectures, questions and answers and solving 3 X 50 questions			0%
5	Able to express the results of problem identification into a formula for which a solution will be sought	Students actively respond to the material provided by asking questions and discussing.		Lectures, questions and answers and solving 3 X 50 questions			0%
6	Able to formulate a research summary in an abstract presentation. Able to explore all the problems underlying a research			3 X 50			0%
7	Able to formulate a research summary in an abstract presentation. Able to explore all the problems underlying a research			3 X 50			0%

8	Understand the process of tracing previous research through scientific publications, journals or scientific works. Understand the basic theory underlying research			3 X 50			0%
9	Understand the process of tracing previous research through scientific publications, journals or scientific works. Understand the basic theory underlying research			3 X 50			0%
10	Understand how to write quotations from various library sources. Understand the types and forms of research variables. Understand the methods used in the data collection process			3 X 50			0%
11	Understand how to write quotations from various library sources. Understand the types and forms of research variables. Understand the methods used in the data collection process			3 X 50			0%
12	Understand how to write quotations from various library sources. Understand the types and forms of research variables. Understand the methods used in the data collection process			3 X 50			0%
13	Understand the techniques used in writing scientific papers Understand the process of drawing conclusions Understand the entire research method material § understand the process of preparing a research proposal			3 X 50			0%
14	Understand the techniques used in writing scientific papers Understand the process of drawing conclusions Understand the entire research method material § understand the process of preparing a research proposal			3 X 50			0%

| 15 | Understand the techniques used in writing scientific papers Understand the process of drawing conclusions Understand the entire research method material § understand the process of preparing a research proposal | | | 3 X 50 | | | 0% |
| 16 | Understand the techniques used in writing scientific papers Understand the process of drawing conclusions Understand the entire research method material § understand the process of preparing a research proposal | | **Form of Assessment** : Portfolio Assessment | 3 X 50 | | | 100% |

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Portfolio Assessment	100%
		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.