



Universitas Negeri Surabaya
Faculty of Mathematics and Natural Sciences
Undergraduate Mathematics Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																										
Mathematics Seminar	4420102116		T=2 P=0 ECTS=3.18	5	July 17, 2024																																										
AUTHORIZATION	SP Developer		Course Cluster Coordinator		Study Program Coordinator																																										
		Prof. Dr. Raden Sulaiman, M.Si.																																										
Learning model	Case Studies																																														
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																														
	Program Objectives (PO)																																														
	PLO-PO Matrix																																														
		P.O																																													
	PO Matrix at the end of each learning stage (Sub-PO)																																														
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width: 5%;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 2%;">1</td> <td style="width: 2%;">2</td> <td style="width: 2%;">3</td> <td style="width: 2%;">4</td> <td style="width: 2%;">5</td> <td style="width: 2%;">6</td> <td style="width: 2%;">7</td> <td style="width: 2%;">8</td> <td style="width: 2%;">9</td> <td style="width: 2%;">10</td> <td style="width: 2%;">11</td> <td style="width: 2%;">12</td> <td style="width: 2%;">13</td> <td style="width: 2%;">14</td> <td style="width: 2%;">15</td> <td style="width: 2%;">16</td> </tr> </table>														P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
P.O	Week																																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																															
Short Course Description	This course provides students with understanding and mastery of scientific writing, explaining the contents of scientific articles, literature studies to make mathematical research proposals, procedures for making proposals, how to explain the contents of a proposal and argumentation of the contents of a scientific research idea in the field of mathematics, both theoretical and applied. . Apart from that, techniques for writing scientific papers are also given according to the thesis writing guidebook published by Unesa. Thus, at the end of the lecture, it is hoped that you will be able to produce a thesis research proposal in the field of Mathematics.																																														
References	Main :																																														
	1. Penulisan Skripsi Unesa																																														
	Supporters:																																														
Supporting lecturer	Prof. Drs. I Ketut Budayasa, Ph.D. Dr. Yusuf Fuad, M.App.Sc. Prof. Dr. Manuharawati, M.Si. Dr. Agung Lukito, M.S. Dr. Abadi, M.Sc. Prof. Dr. Raden Sulaiman, M.Si. Prof. Dr. Dwi Juniati, M.Si. Dr. Budi Rahadjeng, S.Si., M.Si. Dr. Dian Savitri, S.Si., M.Si. Yuliani Puji Astuti, S.Si., M.Si. A'yunin Sofro, M.Si., Ph.D. Rudianto Artiono, S.Pd., M.Si. Dwi Nur Yuniati, S.Si., M.Sc. Budi Priyo Prawoto, S.Pd., M.Si. Muhammad Jakfar, S.Si., M.Si. Dimas Avian Maulana, S.Si., 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	Understand scientific articles and scientific literature reviews in the field of mathematics	Explain the characteristics of scientific articles and scientific literature studies in the field of mathematics	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation, discussion 2 X 50			0%
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2	Explain the characteristics of mathematical research	Explain the characteristics of a linguistic research proposal	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation, Discussion 2 X 50			0%
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3	Explain the steps in a mathematics research proposal	Explain the steps in a mathematics research proposal	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	observation, presentation 2 X 50			0%
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4	Developing a researcher proposal Example of a mathematics research proposal process according to a relevant topic	Being able to make decisions is characterized by skillfully developing mathematical proposals using various relevant learning sources	Criteria: 1.The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Observation, presentation 2 X 50			0%
5		vos viewer	Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment	Bibliometric Analysis 100		Material: Bibliometric Analysis of Literature:	0%

6	Explain the theories that support mathematical research	Explain the learning theory that underlies mathematics research proposals	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation and discussion 2 X 50			0%
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7	literature review		Criteria: 1.The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentations, discussions. 2 X 50			0%
8	UTS	UTS	Criteria: UTS	UTS 3 X 50			0%

9	Explain the steps for selecting a title based on research characteristics	Explain the steps for selecting a title	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Identify examples of 3 X 50 headlines			0%
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10	Develop titles for relevant topics	Being able to make decisions is characterized by skillfully developing titles using various relevant learning sources	Criteria: 1.The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation 3 X 50			0%
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11	Explain the background of the problem	Explain the purpose of applying problem background. Give examples of problem background	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation and discussion 3 X 50			0%
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12	Explain the theory that supports the problem	Explain the basis of problem-oriented theory	Criteria: 1.The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation and discussion 3 X 50			0%
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13	Explain how to identify problems	Explain the identifying characteristics of the problem	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Presentation, discussion, reflection 3 X 50			0%
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14	Explain the steps for problem identification	Explain the steps for identifying problems	Criteria: 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Observation, presentation 3 X 50			0%
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15	Develop a problem formulation	Being able to make decisions is characterized by skillfully developing problems using various relevant learning sources	Criteria: 1.The assessment is carried out on the following aspects: 2.1. Participation during lectures and presentations, carried out through observation (weight 2) 3.2. Sub-summative test, carried out once, assessing all relevant indicators through a written exam, averaged and weighted (2) 4.3. Assessment of proposal products other than those shown in the presentation, is considered an assignment, the scores are averaged, then weighted (3) 5.4. 3x performance scores during the presentation plus 2x marks for the proposal are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10	Observation, presentation 3 X 50			0%
16	UAS	UAS	Criteria: UAS	UAS 2 X 50			0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
		0%

Notes

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Forms of assessment:** test and non-test.
- 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.
- 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.