	Universitas Negeri Surabaya Faculty of Mathematics and Natural Sciences, Mathematics Education Masters Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
ETHNOMATHEMATICS (ETHNOMATHEMATICS)	8410202166		T=2	P=0	ECTS=4.48	2	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Dr. Agung Lukito, M.S.

Learning model	**Project Based Learning**	
Program Learning Outcomes (PLO)	**PLO study program which is charged to the course**	
	PLO-6	Able to design, implement, and evaluate an effective and innovative mathematics instruction
	PLO-9	Able to demonstrate mathematics pedagogical content knowledge and understanding
	PLO-11	Collaborate and be responsible professionally and ethically in completing mathematics and mathematics education tasks
	Program Objectives (PO)	
	PLO-PO Matrix	

P.O	PLO-6	PLO-9	PLO-11

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	This course provides students with insight, knowledge and skills in utilizing Indonesian culture in mathematics education. The material coverage includes the concept of ethnomathematics, integration of culture and mathematics, the use of culture or traditions in Indonesia that have ethnomathematics value, studying various recent articles on ethnomathematics, and using them in designing mathematics learning. Learning in this course is presented through literature study activities, searching for the latest ethnomathematics articles on the internet, exploring ethnomathematics in a particular culture, and projects developing ethnomathematics-based learning tools.	
References	**Main :**	

1. [1] Ascher, M. (1991). Ethnomathematics: a multicultural view of mathematical ideas. Cole Publishing Company, California.
2. [2] Ascher, M. & Ascher, R. (1986). Ethnomathematics. History of Science, 24(2), 125–144.
3. [3] Barton. (1985). Ethnomathematics and curriculum change. Unpublished Manuscript.
4. [4] Barton, B. (1996). Ethnomathematics: Exploring cultural diversity in mathematics. ResearchSpace@ Auckland.
5. [5] Borba, M. de C. (1990). Ethnomathematics and Education. For the Learning of Mathematics, 10, 1.
6. [6] D'Ambrosio, U. (1985). Ethnomathematics and its place in the history and pedagogy of mathematics. For the Learning of Mathematics, 5(1), 44–48.

Supporters:

1. [1] D'Ambrosio, U. (1985). Ethnomathematics and its place in the history and pedagogy of mathematics. For the Learning of Mathematics, 5(1), 44–48.

Supporting lecturer	Prof. Dr. Mega Teguh Budiarto, M. Pd. Dr. Rini Setianingsih, 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			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Explain the nature, rationale and benefits of ethnomathematics. 100 minutes			0%
2			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Presentation and discussion about ethnomathematics and ethnomodeling. 100			0%
3			**Form of Assessment** : Participatory Activities	Explain the dimensions, perspective and position of ethnomathematics. 100			0%
4			**Form of Assessment** : Participatory Activities	Presentation and discussion of the subject, object, approaches and methods of ethnomathematics.			0%
5			**Form of Assessment** : Participatory Activities	Understand theoretical studies, research results, and research approaches in ethnomathematics and mathematics learning. 100			0%
6			**Form of Assessment** : Participatory Activities	Presentation and discussion of the results of theoretical studies, research results, and research approaches in ethnomathematics and ethnomodeling 100			0%
7			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Presentation and discussion about the relationship between culture and ethnomathematics. 100			0%
8			**Form of Assessment** : Test	Take a written test on ethnomathematics with the material studied from the 1st to the 7th meeting.			0%

9			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Presentation and discussion about theoretical studies and research results regarding the position of ethnomathematics in mathematics learning.			0%
10			**Form of Assessment** : Participatory Activities	Presentation and discussion of the results of ethnomathematics studies/case studies in a particular culture.			0%
11			**Form of Assessment** : Participatory Activities	Presentation and discussion of the results of ethnomathematics studies/case studies in a particular culture.			0%
12			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Presentation and discussion of the results of ethnomathematics studies/case studies in a particular culture. 100	Presentation and discussion of the results of ethnomathematics studies/case studies in a particular culture. 100		0%
13			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Presentation and discussion of the results of ethnomathematics studies/case studies in a particular culture. 100	Presentation and discussion of the results of ethnomathematics studies/case studies in a particular culture. 100		0%
14			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Developing ethnomathematics-based learning tools. 100	Developing ethnomathematics-based learning tools. 100		0%
15			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Developing AKM, mathematics learning tools, worksheets, teaching modules, good and practical ethnomathematics-based teaching materials. 100	Developing AKM, mathematics learning tools, worksheets, teaching modules, good and practical ethnomathematics-based teaching materials. 100		0%
16			**Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Developing AKM, mathematics learning tools, worksheets, teaching modules, good and practical ethnomathematics-based teaching materials. 100	Developing AKM, mathematics learning tools, worksheets, teaching modules, good and practical ethnomathematics-based teaching materials. 100		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** 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.