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

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Innovative Learning	8420200004		T=3	P=0	ECTS=4.77	4	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	Dr. Susanah, M.Pd. Dr. Masriyah, M.Pd. Dr. Pradnyo Wijayanti, M.Pd. Dr. Endah Budi Rahaju, M.Pd. Dr. Rini Setianingsih, M.Kes. Dr. Ismail, M.Pd. Dr. Nonik Indrawatiningsih, M.Pd, Dr. Ali Shodikin, M.Pd	.....	Dr. Endah Budi Rahaju, M.Pd.

Learning model	**Project Based Learning**

Program Learning Outcomes (PLO)

PLO study program which is charged to the course

Program Objectives (PO)

PO - 1	Able to demonstrate the theoretical basis, stages, class management, and evaluation in differentiated learning, TaRL approach, CRT approach, direct teaching model, cooperative learning model, and scientific approach-oriented learning such as problem-based learning. , discovery learning, and project-based learning, in designing, implementing, and evaluating mathematics learning.
PO - 2	Able to design, implement and evaluate the teaching and learning process, differentiation learning materials, TaRL approach, CRT approach, direct teaching model, cooperative learning model, and scientific approach-oriented learning such as problem-based learning, discovery learning , and project-based learning, in designing, implementing and evaluating mathematics learning using ICT.
PO - 3	Able to communicate ideas and research results effectively orally and in writing.
PO - 4	Able to demonstrate a scientific, critical and innovative attitude towards differentiation learning materials, TaRL approach, CRT approach, direct teaching model, cooperative learning model, and scientific approach-oriented learning such as problem-based learning, discovery learning, and project-based learning, in designing, implementing and evaluating mathematics learning in professional assignments

PLO-PO Matrix

P.O
PO-1
PO-2
PO-3
PO-4

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																
PO-4																

Short Course Description	Studying the theoretical basis, stages, classroom management, and evaluation in differentiated learning, TaRL approach, CRT approach, direct teaching model, cooperative learning model, and scientific approach-oriented learning such as problem-based learning, discovery learning, and project-based learning, in designing, implementing and evaluating mathematics learning along with its implementation in learning through individual assignments and group assignments with discussion and reflection activities.
References	**Main :**

1. [1] Nur, M., Kardi, S. (2000). Pengajaran Langsung. Surabaya: Pusat Sains dan Matematika Sekolah. [2] Nur, M. (2000). Pembelajaran Kooperatif. Surabaya: Pusat Sains dan Matematika Sekolah [3] Ibrahim, M., Rachmadiarti, F., Ismono. (2005). Pembelajaran Kooperatif. Surabaya: Pusat Sains dan Matematika Sekolah. [4] Ibrahim, M. (2012). Pembelajaran Berdasarkan Masalah Edisi II. Surabaya: University Press [5] Arends, R.I. (2012). Learning to Teach . 6th Edition. New York: McGraw-Hill Book Company. [6] Arends, R.I. (2004). Guide to Field Experiences and Portofolio Development: to accompany learning to teach. New York: McGraw-Hill Book Company. [7] Wijayanti, P., Budiarto, M.T., Ismail, Kurniasari, I., Prihartiwi,N.R. (2021). Model Pembelajaran Matematika Berpusat pada Peserta Didik. Surabaya: Unesa University Press.
2. [2] Wijayanti, P., Budiarto, M.T., Ismail, Kurniasari, I., Prihartiwi,N.R. (2021). Model Pembelajaran Matematika Berpusat pada Peserta Didik. Surabaya: Unesa University Press
3. [3] Arends, R.I. (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.
4. [4] Tomlinson, C. A. (2001). How to Differentiated instruction in mixed-ability classrooms 2nd Ed). Alexandria, VA: ASCD.

Supporters:

1. [1] Nur, M. (2000). Pembelajaran Kooperatif. Surabaya: Pusat Sains dan Matematika Sekolah
2. [2] Ibrahim, M., Rachmadiarti, F., Ismono. (2005). Pembelajaran Kooperatif. Surabaya: Pusat Sains dan Matematika Sekolah
3. [3] Arends, R.I. (2004). Guide to Field Experiences and Portofolio Development: to accompany learning to teach. New York: McGraw-Hill Book Company
4. [4] Hockett, J. A. (2018). Differentiation Strategies and Examples: Grades 6-12. Tennessee Department of Education. Alexandria, VA: ASCD

Supporting lecturer	Dr. Hj. Masriyah, M.Pd. Dr. Rini Setianingsih, M.Kes. Dr. Ismail, M.Pd. Dr. Susanah, M.Pd. Dr. Pradnyo Wijayanti, M.Pd. Sugi Hartono, M.Pd. Dr. Ali Shodikin, S.Pd., M.Pd. Dr. Nonik Indrawatiningsih, M.Pd.

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 differentiation learning, the TaRL (Teaching at The Right Level) approach and the CRT (Culturally Responsive Teaching) approach (CLO-1)		**Form of Assessment** : Participatory Activities		Online using Google Meet 3 x 50‘	**Material:** Differentiated Learning, TaRL Approach, CTR Approach **References:** *[4] Tomlinson, CA (2001). How to Differentiate instruction in mixed-ability classrooms 2nd Ed). Alexandria, VA: ASCD.*	0%

2	Understand differentiation learning, the TaRL (Teaching at The Right Level) approach and the CRT (Culturally Responsive Teaching) approach (CLO-1)		**Form of Assessment** : Participatory Activities		Online using Google Meet 3 x 50‘	**Material:** Differentiated Learning, TaRL Approach, CTR Approach **References:** *[4] Tomlinson, CA (2001). How to Differentiate instruction in mixed-ability classrooms 2nd Ed). Alexandria, VA: ASCD.*	0%

3	1. Understand the characteristics of the CTL approach, scientific approach and realistic approach (CLO-1) 2. Understanding the direct teaching model in the learning process (CLO-1) 3. Able to demonstrate a scientific, critical and innovative attitude in direct instruction model learning materials and in professional assignments (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Form of Assessment** : Participatory Activities, Practice/Performance	Offline 3 x 50‘	Online using Google Meet	**Material:** Direct Learning **References:** *[1] Nur, M., Kardi, S. (2000). Direct Teaching. Surabaya: School Science and Mathematics Center. [2] Nur, M. (2000). Cooperative Learning. Surabaya: School Science and Mathematics Center [3] Ibrahim, M., Rachmadiarti, F., Ismono. (2005). Cooperative Learning. Surabaya: School Science and Mathematics Center. [4] Ibrahim, M. (2012). Problem Based Learning II Edition. Surabaya: University Press [5] Arends, RI (2012). Learning to Teach . 6th Edition. New York: McGraw-Hill Book Company. [6] Arends, RI (2004). Guide to Field Experiences and Portfolio Development: to accompany learning to teach. New York: McGraw-Hill Book Company. [7] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press.*	5%

4	Designing direct teaching activities and simulating them (CLO-2) Able to demonstrate a scientific, critical and innovative attitude in Direct Instruction Model learning materials, and in professional assignments (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Offline 3 x 50‘	Online using Google Meet	**Material:** Direct learning **References:** *[1] Nur, M., Kardi, S. (2000). Direct Teaching. Surabaya: School Science and Mathematics Center. [2] Nur, M. (2000). Cooperative Learning. Surabaya: School Science and Mathematics Center [3] Ibrahim, M., Rachmadiarti, F., Ismono. (2005). Cooperative Learning. Surabaya: School Science and Mathematics Center. [4] Ibrahim, M. (2012). Problem Based Learning II Edition. Surabaya: University Press [5] Arends, RI (2012). Learning to Teach . 6th Edition. New York: McGraw-Hill Book Company. [6] Arends, RI (2004). Guide to Field Experiences and Portfolio Development: to accompany learning to teach. New York: McGraw-Hill Book Company. [7] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press.*	10%

5	Understanding the cooperative learning model in the learning process (CLO-1)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Form of Assessment** : Participatory Activities, Practice/Performance	Offline 3 x 50‘	Online using Google Meet	**Material:** Cooperative Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.* **Material:** Cooperative Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press*	5%
6	Understanding the cooperative learning model in the learning process (CLO-1)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Form of Assessment** : Participatory Activities, Practice/Performance	Offline 3 x 50‘	Online using Google Meet	**Material:** Cooperative Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.* **Material:** Cooperative Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press*	5%

7	Designing a cooperative learning model in the learning process (CLO-1)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Offline 3 x 50‘	Online using Google Meet	**Material:** Cooperative Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.* **Material:** Cooperative Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press*	10%
8	Midterm Exam (UTS)	Accuracy in working on projects	**Criteria:** Accuracy in working on projects	Offline 100‘			10%
9	1. Understanding the PBL learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in PBL model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance	Offline 3 x 50‘		**Material:** PBL **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** PBL **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	5%

10	1. Designing a PBL learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in PBL model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Offline 3 x 50‘		**Material:** PBL **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** PBL **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	10%
11	1. Understanding the discovery learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in discovery model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Form of Assessment** : Participatory Activities, Practice/Performance	Offline 3 x 50‘		**Material:** Discovery Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** Discovery Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	5%

12	1. Designing a discovery learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in discovery model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Offline 3 x 50‘		**Material:** Discovery Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** Discovery Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	10%
13	1. Understanding the PjBL learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in PjBL model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Form of Assessment** : Participatory Activities, Practice/Performance	Offline 3 x 50‘		**Material:** Discovery Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** Discovery Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	5%

14	1. Understanding the PjBL learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in PjBL model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Form of Assessment** : Participatory Activities, Practice/Performance	Offline 3 x 50‘		**Material:** Discovery Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** Discovery Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	5%
15	1. Designing a PjBL learning model in the learning process (CLO-1) 2. Able to demonstrate a scientific, critical and innovative attitude in PjBL model learning materials, and in professional tasks (CLO-4)	Authentic Assessment, assignments, and performance	**Criteria:** Authentic Assessment, assignments, and performance **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Offline 3 x 50‘		**Material:** Discovery Learning **References:** *[2] Wijayanti, P., Budiarto, MT, Ismail, Kurniasari, I., Prihartiwi, NR (2021). Student-Centered Mathematics Learning Model. Surabaya: Unesa University Press* **Material:** Discovery Learning **References:** *[3] Arends, RI (2012). Learning to Teach. 6th Edition. New York: McGraw-Hill Book Company.*	10%
16			**Form of Assessment** : Project Results Assessment / Product Assessment	Offline 100‘			10%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	31.65%
2.	Project Results Assessment / Product Assessment	26.65%
3.	Practice / Performance	31.65%
		89.95%

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.