UNESA	**UNIVERSITAS NEGERI SURABAYA** **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **UNDERGRADUATE PROGRAMME OF MATHEMATICS EDUCATION**	**Document Code**

SEMESTER LEARNING PLAN

Name of Module	Code	Module Cluster	Credits		Semester	Date of Preparation
Contextual Mathematics	8420203018	Pedagogic Studies	**T = 3**	**P = 0**	4	November 15th, 2020

Authorization	Lesson Plan Creator	Module Coordinator	Head of UPME
	Dr. Masriyah, M.Pd. Dr. Endah Budi Rahaju, M.Pd. Abdul Haris Rosyidi, M.Pd. Ahmad Wachidul Kohar, M.Pd	**Dr. Endah Budi Rahaju,M.Pd.**	**Rooselyna Ekawati, M.Sc., Ph.D.**

Learning Achievement (CP)		
	PLO-PRODI charged to the Court of	
	KN-2	Able to demonstrate pedagogical knowledge in designing, implementing, and evaluating Mathematics learning.
	SK-1	Able to design, implement and evaluate the learning process of teaching mathematics using ICT
	COM-1	Able to communicate research ideas and results effectively orally and in writing
	Course Learning Achievement (CLO)	
	CLO1	Reviewing and presenting the theory and principles of evaluation, measurement, assessment, instrument assessment and assessment results (KN-2, COM-1)
	CLO2	Expandsan assessment instrument (KN-2, SK-1, COM-1)
	CLO3	Processing, analyzing and interpreting assessment results (KN-2, SK-1, COM-1)
	Final ability of each learning stage (Sub-CLO)	
	Sub-CLO1.1	Reviewing and presenting assessment theory (principles, objectives, functions, types)
	Sub-CLO1.2	Reviewing and presenting the position of measurement, assessment and evaluation, taxonomy of Bloom's Educational objectives and the basic principles of assessment procedures
	Sub-CLO1.3	Reviewing and presenting technical theories, sorts, forms of tests and non-tests
	Sub-CLO1.4	Reviewing and presenting class-based assessments
	Sub-CLO1. 5	Reviewing and presenting the theory of measuring instrument quality
	Sub-CLO2.1	Develop indicators of competency achievement and learning objectives based on basic competencies
	Sub-CLO2.2	Develop assessment instruments (tests) and guidelines for scoring

	Sub-CLO2.3	Develop assessment instruments (non-tests) and their scoring guidelines
	Sub-CLO3.1	Processing and interpreting the assessment results (in the form of tests)manually and utilizing software and how to report them
	Sub-CLO3.2	Process and interpret assessment results (non-tests) manually and utilize software and how to report them
	Sub-CLO3. 3	Use the assessment results (test and non test) for mathematics learning
	Sub-CLO3. 4	Analyze and interpret the quality test results of measuring instruments manually and utilize software
Brief Description of module	The concepts, objectives, functions and principles of assessment, taxonomy of cognitive learning outcomes, affectives, psychomotors, assessment strategies (paper & pencil and alternative assessments), forms of assessment instruments, rubrics, analysis and interpretation of assessment results, class-based assessments, assessments for science process skills and scientific attitudes (including character) through task-based learning, discussion, and use of Anates V4 and Iteman *software.*	
Study Material: Learning Materials	Theories about assessment, cognitive learning outcomes, affective, psychomotor, assessment strategies, instrument forms of assessment, rubrics, analysis and interpretation of assessment results, class-based assessments, assessments for science process skills and scientific attitudes (including character) through task-based learning, discussion, and use of Anates V4 and Iteman *software.*	
References	**Main :**	
	[1] Kubiszyn, Tom/ I. Borich, Gary. 2007. *Educational testing and measurement: classroom application and practice.* New Jersey: John Wiley & Sons.	
	Supporters :	
	[2] Brookhart, Susan M. 2010. *How to assess higher-order thinking skills in your classroom.* Alexandria: ASCD. [3] Arikunto, Suharsimi / I. Jabar, Cepi Safruddin Abdul. 2008. Evaluation *of educational programs: theoretical guidelines for students and educational practitioners*. Jakarta: BumiAksara. [4] Kumari, Sarita / I. Srivastava, D.S. 2005. *Education: assessment, evaluation and remedial*. New Delhi: Isha Books. [5] Rani, T. Swarupa. 2004. *Educational measurement and evaluation*. New Delhi: DPH. [6] Ross, Kenneth N. (ed. 2005. *Quantitative research Methods in Educationl Planning, Module 6: Overview of Test Construction.* Paris: International Institute for Educational Planning, UNESCO. [7] Walton, John A. 2005. *Educational objectives and achievement testing*. New Delhi: Commonwealth. [8] George, David. 2005. *Examination and evaluation in education*. New Delhi: Commonwealth. [9] Arends, Richard I. 2004. *Guide to Field Experiences ad Portfolio Development: to accompany ;learning to teach.* New York: McGraw-Hill Book Company. [10] Up, S.P. 2004. *Role of evaluation in education*. New Delhi: Anmol Publications PVP. [11] Johnson, David W. and Johnson, Robert T. 2002. *Meaningful Assessment Manageable and Cooperative process.* Boston: Allyn and Bacon. [12] Anderson, L.W. and Krathwohl,D.R.(eds). 2001. *A Taxonomy for Learning, Teaching, and Assesing: A Revision of Bloom's Taxonomy of Educational Objectives.* New York : Longman	
Lecturers	Dr. Masriyah, M.Pd. Dr. Endah Budi Rahaju, M.Pd. Abdul Haris Rosyidi, M.Pd. Ahmad Wachidul Kohar, M.Pd.	

Courses syarat	Basics of Education						
Week	**Final ability of each stage of learning**	**Assessment**		**Learning Aids, Learning Methods, Student Assignment,**		**Learning Materials**	**Assessment Weight (%)**
		Indicators	**Criteria & Shapes**	**Offline**	**Online**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
1	Sub-CLO1.1 Reviewing and presenting assessment theory (principles, objectives, functions, types)	1. Analyzing assessment principles 2. Analyzing assessment objectives, types and functions 3. Analyzing the meaning of education and learning assessments 4. Explain the meaning of assessment as learning, assessment for learning, and assessment of learning	Quantitative and Tests	Lectures, Responses, and Presentations using LMS Vinesa Group tasks and presentations 3 x 50 minutes		[1] [3], [4]	
2	Sub-CLO1.2: Reviewing and presenting the position of measurement, assessment and evaluation, taxonomy of Bloom's Educational objectives and the basic principles of assessment procedures	1. Analyze measurement position, assessment and evaluation 2. Understand the taxonomy of learning objectives 3. Explain the basic principles of learning outcome assessment procedures	Quantitative and Tests	Lectures, Responses, and Presentations using LMS Vinesa Group tasks and presentations 3 x 50 minutes		[1] [4], [8], [10]	
3-4	Sub-CLO1.2:	1. Explain the difference between the old Bloom	Quantitative and Tests	Lectures, Responses, and		[5], [7] , [12]	

	Reviewing and presenting the position of measurement, assessment and evaluation, taxonomy of Bloom's Educational objectives and the basic principles of assessment procedures Sub-CLO2.1: Me developindicators of competency achievement and learning objectives based on basic competencies	Taxonomy and Bloom's revised taxonomy 2. Build learning indicators 3. Develop learning objectives 4. Explain the components of learning objectives 5. Explaining the clafikasi dimension of knowledge		Presentations using LMS Vinesa Group tasks and presentations 6 x 50 minutes			
5-7 p.m.	Sub-CLO1. 3 Mengkaji and present the theory of engineering, sorts, forms of tests and non-tests Sub-CLO2.2: Develop assessment instruments (tests) and guidelines for scoring Sub-CLO3.1: Processing and interpreting the assessment results (in the form of tests)manually and utilizing software and how to report them	1. Explain the Definition of Advantages and Disadvantages of the test 2. Explain Techniques, Types and forms of tests 3. Arrange scoring rubrics 4. Explain rubrik test assessment, scoring, conversion of score into value **5.** Interpret learning outcomes 6. Process test results 7. Explain the reporting of test results	Quantitative and Tests	Lectures, Responses, and Presentations using LMS Vinesa Group tasks and presentations 9 x 50 minutes		[1], [3] , [5], [8]	
8	**Midterm Evaluation / Semester Tengan Exam**						**20%**

9	Sub-CLO1. 3 Mengkaji and present the theory of engineering, sorts, forms of tests and non-tests Sub-CLO2. 3: Develop assessment instruments (non-tests) and their scoring guidelines Sub-CLO3. 2: Processand interpret assessment results (non-tests) manuallyandutilize software and how to report them	1. Explain the non-test understanding of questionnaires, observations, , and interviews and attitude scales) 2. Explain theRulespe nyusunan non test questionnaires, observations, , and interviews and attitude scales) 3. Develop questionnaires, positives and negatives, observation guidelines, and interviews and attitude scales), 4. Process non-test results of questionnaires, observations, , and interviews and attitude scales) 5. Explain reporting of non-test results	Quantitative and Tests		Lectures, Responses, and Presentations using LMS Vinesa Asynchronus or Synchronus Group tasks and presentations 3 x 50 minutes	[1], [6], [8], [9]	
10	Sub-CLO2.2: Develop assessment instruments (tests)and scoring guidelines. Sub-CLO3.1: Processing and interpreting the assessment results (in the form of tests)manually and utilizing software and how to report them. Sub-CLO2. 3: Develop assessment instruments (non-tests) and scoring guidelines.	1. Describe techniques in skill assessment (practices, products, projects, portfolios, and other techniques) 2. Develop practical assessment instruments, products, projects, portfolios 3. Explain the reporting of skill assessment results	Quantitative and Tests		Lectures, Responses, and Presentations using LMS Vinesa Asynchronus or Synchronus Group tasks and presentations 3 x 50 minutes	[1], [2], [3]. [12]	

	Sub-CLO3. 2: Processand interpret assessment results (non-tests) manuallyandutilize software and how to report them.						
11	Sub-CLO1.4: Reviewing and presenting class-based assessments Sub-CLO2.2: Develop assessment instruments (tests) and guidelines for scoring Sub-CLO3.3: Utilization of processing assessment results (tests and non-tests)	1. Explain the meaning of Classroom based assessment 2. Explaining the various techniques of Classroom based assessment 3. Develop Classroom based assessment and its scoring rubric based on certain competency frameworks (e.g. problem solving, reasoning, or critical/creative thinking) 4. Determine learning completedness criteria 5. Utilizing the analysis of learning outcomes (remidi or enrichment)	Quantitative and Tests		Lectures, Responses, and Presentations using LMS Vinesa Asynchronus or Synchronus Group tasks and presentations 3 x 50 minutes	[4], [8]	
12 - 13	Sub-CLO1. 5: Reviewing and presenting the theory of measuring instrument quality	1. Explain validity and reliability 2. Explain the factors that affect validity 3. Explain the factors that affect reliability 4. Explain the various validities of a test device 5. Describe the different methods to determine the reliability of a test	Quantitative and Tests		Lectures, Responses, and Presentations using LMS Vinesa Asynchronus or Synchronus Tasks Individu and presentations	[3], [4]	

		6. Calculate the reliability of the test based on norms and benchmarks			6 x 50 minutes		
14 - 15	Sub-CLO3. 4: Analyze and interpret the quality test results of measuring instruments manually and utilize software	1. Analyze the problem items, including: the level of achievement of indicators of points of reference criteria, index sensitivity of points about reference criteria, difficulty of test items, differentiating power, effectiveness of options, validity of points about norm reference 2.Practice analysis of test items and determination of test reliability with computer programs	Quantitative and Tests		Lectures, Responses, and practices using VINESA LMS and Anates V4 software and iteman Asynchronus or Synchronus The practice of analyzing the quality of measuring instruments	[3], [4] Software Anates V4, Iteman	
16	**Final Evaluation of Semester / Final Semester Examination**						**30%**

Description:

1. **Assessment Weight: 30% Duty and 20% Participation**
2. **Synchronus at least 6 times**
3. **CLO-1 and CLO-2 are measured at**each**find that requires students to** complete **anassignment or quiz**

Surabaya, 17th November 2020

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