

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

Document Code

SEMESTER LEARNING PLAN

Basic mathematic 4620 2012 I Image: Im	Basic mathematic 4683102197 Tr2 Prol ECTS=3.18 1 July 17, 2 AUTHORIZATION SP Developer Course Cluster Coordinator Study Program Course Cluster Coordinator Study Program Course Cluster Coordinator Study Program Course Cluster Coordinator Project Based Learning Project Based Learning Dr. H. Sun, Kunjoro, S. M.St. Dr. H. Sun, Kunjoro, S. M.St. Program Course PLO Study program that is charged to the course and/or technology according to them field of experise. Dr. H. Sun, Kunjoro, S. M.St. PLO-6 Able to poly logical, critical, systematic and innovative thinking in the context of developing or implementing science and/or technology according to them field of experise. PLO-7 Able to consister basic knowledge for taboratory and in the field. PLO-7 Able to demonstrate basic knowledge for phonomen and issues and apply them in probem solving. Herewise, subscience, and mathematics to understand current scientific phonomen and series, probability, functions, function derivatives, function integrals, and their applications Turn propability, functions, function derivatives, function integrals, and their applications P0-1 Apply hear in moveline developing or innovable thinking in the concept of sequences and series, probability, functions, function derivatives, function integrals, and their applications Turn phonomen and series and series, probability, functions, function derivatives, function integrals, and	Courses			CODE					Course Family			Credit Weight				SEM	IESTE		mpila	tion	
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Support lecturer	Dr. Ismail, M.Pd. Abdul Haris Rosy Ika Kurniasari, S. Nurus Saadah, S Dr. Nonik Indrawa Evangelista Lus V	idi, S.Pd., M.Pd. Pd., M.Pd. .Pd., M.Pd. atiningsih, M.Pd. Windyana Palupi, S.Pd., M.S rtiwi, S.Pd., M.Pd.	с.				
Week-	Final abilities of each learning stage	Evaluati	on	Learr Studer	lp Learning, ning methods, nt Assignments, timated time]	Learning materials [References	Assessment Weight (%)
	(Sub-PO)	Indicator	Criteria & Form	Offline(offline)	Online (<i>online</i>)	1	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Understand the concept of equality and inequality	 Determine the solution to the equation Determine the solution to the inequality Solve problems related to equations/inequalities 	Form of Assessment : Participatory Activities	Expository, discussion and assignment 2 X 50			7%
2	Understand the concept of equality and inequality	 Determine the solution to the equation Determine the solution to the inequality Solve problems related to equations/inequalities 	Form of Assessment : Participatory Activities	Expository, discussion and assignment 2 X 50			7%
3	Understand the basic theory of probability	 Determine the permutation and combination values Determining the sample space of an event Determining the probability of an event 	Form of Assessment : Participatory Activities	expository, discussion and assignment 2 X 50			7%
4	Understand the basic theory of probability	 Determine the permutation and combination values Determining the sample space of an event Determining the probability of an event 	Form of Assessment : Participatory Activities, Tests	expository, discussion and assignment 2 X 50			7%
5	Understand the derivatives of algebraic, trigonometric and exponential functions.	 Determine the origin area, function result area and function value Draw function graphs Determining the limit of a function at a certain point Investigating continuity of function 	Form of Assessment : Participatory Activities, Tests	expository, discussion and assignment 2 X 50			7%
6	Understand the concept of functions and function limits	 Determine the origin area, function result area and function value Draw function graphs Determining the limit of a function at a certain point Investigating continuity of function 	Form of Assessment : Participatory Activities, Tests	expository, discussion and assignment 2 X 50			7%

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7	Understand the derivatives of algebraic, trigonometric and exponential functions.	 Determine the origin area, function result area and function value Draw function graphs Determining the limit of a function at a certain point Investigating continuity of function 	Form of Assessment : Test	expository, discussion and assignment 2 X 50		7%
8				UTS 2 X 50		0%
9	Understand Integral concepts.	 Determining the derivative of an algebraic function Determine derivatives of trigonometric functions Determine the derivative of the exponential function 	Form of Assessment : Participatory Activities	Expository, discussion and assignments. 2 X 50		7%
10	Understand the concept of derivatives and their applications	 Determining the derivative of an algebraic function Determine derivatives of trigonometric functions Determine the derivative of the exponential function Solve problems related to derivatives of functions 	Form of Assessment : Participatory Activities	expository and discussion 2 X 50		7%
11	 Understand the concept of derivatives and their applications Determine derivatives of trigonometric functions Determine the derivative of the exponential function Solve problems related to derivatives of functions 	Determining the indefinite integral of a function - using the substitution integration technique Determining the results of a definite integral.	Form of Assessment : Participatory Activities, Tests	expository and discussion 2 X 50		7%
12	Understand Integral concepts and their applications	Determining the indefinite integral of a function	Form of Assessment : Test	expository, discussion and assignment 2 X 50		7%
13	Understand Integral concepts and their applications	Determine the result of a definite integral	Form of Assessment : Participatory Activities, Tests	expository, discussion and assignment 2 X 50		7%
14	Understand Integral concepts and their applications	Solve problems related to integrals	Form of Assessment : Practical Assessment, Test	Assignment 2 X 50		8%
15	Understand Integral concepts and their applications	Solve problems related to integrals	Form of Assessment : Test	Assignment 2 X 50		8%
16			Form of Assessment : Test	UAS		0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	52.5%
2.	Practical Assessment	4%
3.	Test	43.5%
		100%

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.
- 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.
- 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.