

	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
Real Analysis	8420203004		T=3	P=0	ECTS=4.77	3	July 17, 2024
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator	
			Dr. Endah Budi Rahaju, M.Pd.	
Learning model	Case Studies						
Program Learning Outcomes (PLO)	PLO study program that is charged to the course						
	Program Objectives (PO)						
	PLO-PO Matrix						
		<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">P.O</div>					
Short Course Description	The real analysis course I aims to study the real number system (algebra of real numbers and their properties, rational and irrational numbers, sequence of real numbers and their properties, absolute value, point vicinity, supremum and infimum of a set and their properties, intervals and its properties, the surroundings of a point), topology on the real line (special points of a set and their properties, open sets and closed sets and their properties), sequences of real numbers (limits of sequences, properties of sequence limits, tails of sequences , monotone sequence, partial sequence, divergent sequence, Cauchy's criterion, contractive sequence). Learning is carried out by applying a combination of expository, discussion and question and answer approaches. Assessment is carried out during the learning process with active interactive participation, presentations, assignments and mid-semester exams, as well as final semester exams with proportional weighting.						
	References	Main :	<ol style="list-style-type: none"> 1. (Wajib) Bartle, R.G. Sherbert Donald R. 2011. Introduction to Real Analysis (Fourth Edition), New York, John Wiley and Sons. 2. DePree, J. D. and Swartz, C. W. 1988. Introduction to Real Analysis. New York. John Wiley & Sons. 3. Fuad, Y dan Soedjadi, R. 1997. Handbook Matakuliah Analisis Riil. Pascasarjana IKIP Surabaya. 4. Manuharawati. 2014. Analisis Real. Zifatama: Surabaya. 5. Parzynski, R. and Zipse, P. W. 1987. Introduction to Mathematical Analysis. Auckland. McGraw-Hill Book Company. 6. Referensi lain yang relevan dan standar. 				
Supporters:							
Supporting lecturer		Dr. Yusuf Fuad, M.App.Sc. Prof. Dr. Manuharawati, M.Si. Muhammad Jakfar, 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							0%
2							0%
3							0%
4							0%
5							0%
6							0%
7							0%
8							0%
9							0%
10							0%
11							0%
12							0%
13							0%
14							0%
15							0%
16							0%

Evaluation Percentage Recap: Case Study

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.