

COURSE PORTFOLIO

Study Program	: MATHEMATICS - S1
Semester	: ODD 2023/2024
Course Code	: 23H01120703
Course Name	: Introduction to Real Analysis
Coordinator	: Jusmawati Massalesse, S.Si.,M.Si.
Lecturer Team Member	: Naimah Aris, S.Si.,M.Math., Prof. Dr. Budi Nurwahyu, MS., Dr. Muh. Nur, S.Si., M.Si., Jusmawati Massalesse, S.Si.,M.Si.

Implementation of Learning

Description of the implementation of the lecture, the suitability of what was planned in the RPS with what was done:

Number and percentage of lecturer and student attendance

(data source: monitoring the attendance of lecturers and students)

	Lecturer Attendance	Student Attendance
Introduction to Real Analysis A	Prof. Dr. Budi Nurwahyu, MS. : 8 times	Number of students: 45 persons
	Dr. Muh. Nur, S.Si., M.Si. : 8 times	Presence $\geq 80\%$: 41 persons (91.11 %)
	Total Meeting : 16 times.	Presence $< 80\%$: 4 persons (8.89 %)
Introduction to Real Analysis B	Jusmawati Massalesse, S.Si.,M.Si. : 8 times	Number of students: 28 persons
	Naimah Aris, S.Si.,M.Math. : 8 times	Presence $\geq 80\%$: 24 persons (85.71 %)
	Total Meeting : 16 times.	Presence $< 80\%$: 4 persons (14.29 %)

Materials/practicum provided

1. Real Number System: Algebraic Properties, Order Properties and Completeness Properties of Real Numbers.
2. Topology: Open Sets, Closed Sets and Their Properties
3. Real Number Sequences
4. Function Limits
5. Continuity

The learning methods implemented

College

The assessment method implemented

1. Quiz
2. Case Studies
3. Mid Test
4. Independent Assignment

Supplementary information (if available)

None

2. Learning Outcomes

Measurement results of CLO

Assessment and Evaluation of Student Achievement of CLO^a

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
ILO 1	CLO-1	Independent Assignment	10.00 %	83.93
ILO 1	CLO-1	Mid Test	20.00 %	50.77
P2	CLO-2	Quiz	15.00 %	62.52
P2	CLO-2	Independent Assignment	5.00 %	78.57
P2	CLO-2	Mid Test	20.00 %	50.77
P2	CLO-2	Case Studies	5.00 %	59.98
P2	CLO-2	Case Studies	10.00 %	55.00
KU1	CLO-3	Quiz	15.00 %	62.52
KU1	CLO-3	Independent Assignment	5.00 %	78.57
KU1	CLO-3	Mid Test	20.00 %	50.77
KU1	CLO-3	Case Studies	5.00 %	63.01
KU1	CLO-3	Case Studies	10.00 %	77.00

a: result criteria: very satisfactory if the average score is ≥ 80 ; satisfactory if the average score is 70 - 79.9; unsatisfactory if the average score is < 70 .

Percentage of students who achieved a very satisfactory CLO score^b

(data source: student scores per assessment according to CLOs)

CLO	% of students who achieved a CLO score of at least 80
CLO-1	4.11%
CLO-2	5.48%
CLO-3	2.74%

b: result criteria: very satisfactory if $\geq 80\%$ of students score ≥ 80 ; satisfactory if 70%-79.9% of students score ≥ 80 ; less satisfactory if $< 70\%$ of students score ≥ 80 .

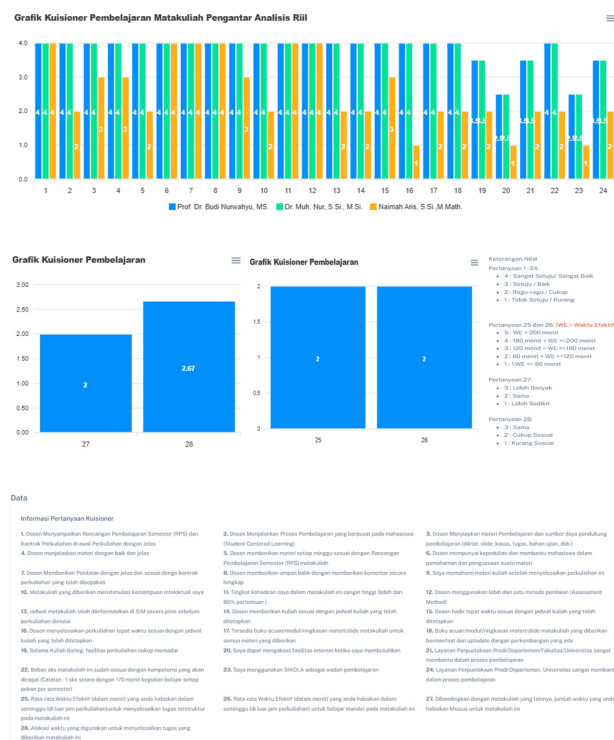
Course Grade

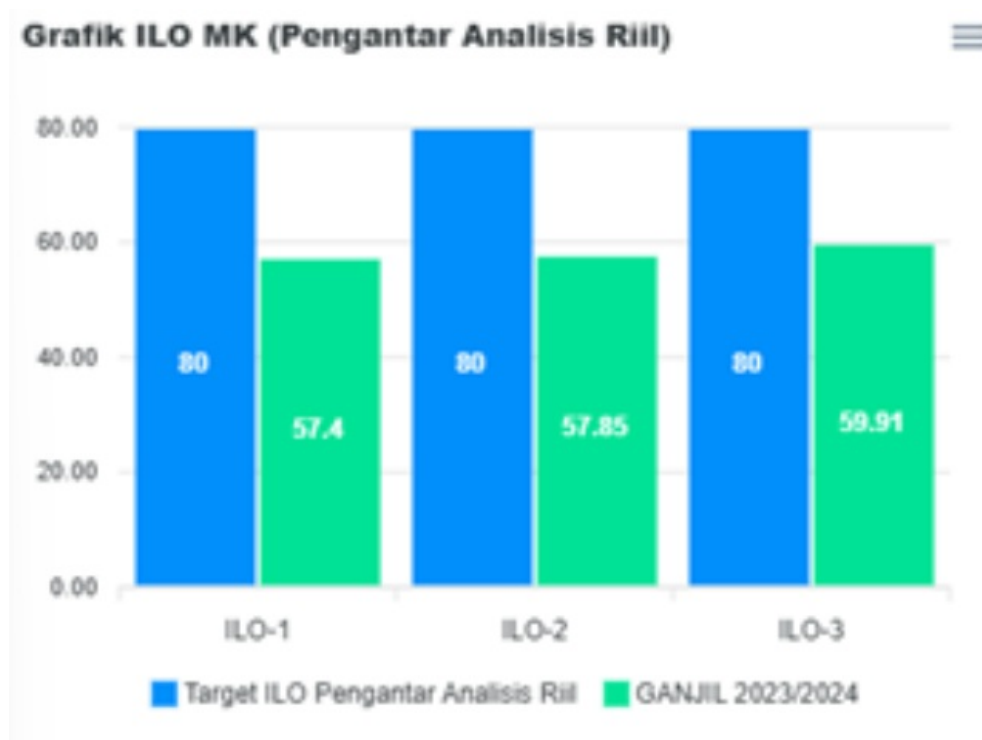
Course Grade	Number and Percentage of Students
A	1 (1.4%)
A-	3 (4.1%)
B+	3 (4.1%)
B	4 (5.5%)
B-	5 (6.8%)
C+	6 (8.2%)
C	3 (4.1%)
D	0 (0.0%)
E	3 (4.1%)

3. Learning evaluation (survey) results

(data source: items / narratives of the results of the MK evaluation questionnaire by students)

Hasil Evaluasi Pembelajaran Matakuliah Pengantar Analisis riil





Hasil Perhitungan CPL Mata Kuliah Pengantar Analisis Riil

4. Analysis and Reflection

Analysis and Reflection

Analysis

Reflection

This very uniform low performance reflects the possibility of a fundamental problem in the design or pedagogical approach of the course, rather than simply difficulty with particular topics. There is a potential for misalignment between the complexity of the abstract material, the teaching methods used, and the students' initial abilities. Therefore, the follow-up that is needed is not a partial improvement, but rather a comprehensive structural review of the entire syllabus, teaching methods and evaluation system to fundamentally improve achievements.

5. Follow-up Plan

In response to learning outcomes that are consistently far below targets in the Introduction to Real Analysis course, the follow-up plan will focus on comprehensive structural interventions. This step will include a fundamental review of curriculum and syllabus design, as well as the introduction of intensive tutorial or response sessions to strengthen students' understanding of abstract concepts. The aim is to systematically raise the foundation of students' understanding and skills so that achievements can be improved significantly in the next evaluation period.

6. Follow-up results on the previous semester's evaluation

Following up on the findings of the previous semester's evaluation for the Introduction to Real Analysis course, which identified chronic and uniform low performance, a structural intervention focused on strengthening aspects of conceptual understanding through the addition of mandatory tutorial sessions and overhaul of evaluation methods has been implemented. This new framework is established as a permanent standard to maintain quality consistency in the future.

Makassar, 21 Oktober 2025

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