

COURSE PORTFOLIO

Study Program	: MATHEMATICS - S1
Semester	: EVEN 2024/2025
Course Code	: 23H01121603
Course Name	: Dynamic Systems
Coordinator	: Prof. Dr. Syamsuddin Toaha, M.Sc.
Lecturer Team Member	: Prof. Dr. Syamsuddin Toaha, M.Sc., Prof. Dr. Kasbawati, 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
	Prof. Dr. Syamsuddin Toaha, M.Sc. : 8 times	Number of students: 20 persons
Dynamic Systems	Prof. Dr. Kasbawati, S.Si., M.Si. : 8 times	Presence $\geq 80\%$: 18 persons (90.00 %) Presence $< 80\%$: 2 persons (10.00 %)
Total Meeting : 16 times.		

Materials/practicum provided

1. Linear System
2. Nonlinear System
3. Local and Global Stability
4. Bifurcation

The learning methods implemented

Collaborative Learning, Small Group Discussion

The assessment method implemented

1. Case Studies
2. Mid Test
3. Final 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)
KU2	CLO-1	Mid Test	18.00 %	11.17
KU2	CLO-1	Independent Assignment	7.00 %	4.67
KU2	CLO-1	Case Studies	10.00 %	68.50
KU2	CLO-1	Final Test	20.00 %	55.00
KU2	CLO-1	Case Studies	9.00 %	5.55
KU2	CLO-1	Case Studies	7.00 %	4.97
KU2	CLO-1	Case Studies	5.00 %	80.00
KU2	CLO-1	Independent Assignment	10.00 %	70.50
KU2	CLO-2	Independent Assignment	7.00 %	4.67
KU2	CLO-2	Final Test	20.00 %	55.00
KU2	CLO-2	Case Studies	9.00 %	5.55
KU2	CLO-2	Independent Assignment	10.00 %	70.50
KU2	CLO-2	Case Studies	7.00 %	4.97
KU2	CLO-2	Case Studies	10.00 %	68.50
KU2	CLO-2	Mid Test	18.00 %	11.17
KU2	CLO-2	Case Studies	5.00 %	80.00
KU2	CLO-3	Case Studies	9.00 %	5.55
KU2	CLO-3	Mid Test	18.00 %	11.17
KU2	CLO-3	Case Studies	7.00 %	4.97
KU2	CLO-3	Independent Assignment	7.00 %	4.67
KU2	CLO-3	Case Studies	10.00 %	68.50
KU2	CLO-3	Final Test	20.00 %	55.00
KU2	CLO-3	Independent Assignment	10.00 %	70.50
KK1	CLO-3	Case Studies	7.00 %	4.97
KK1	CLO-3	Final Test	20.00 %	55.00

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KK1	CLO-3	Case Studies	10.00 %	68.50
KK1	CLO-3	Case Studies	9.00 %	5.55
KK1	CLO-3	Mid Test	18.00 %	11.17
KK1	CLO-3	Independent Assignment	10.00 %	70.50
KK1	CLO-3	Independent Assignment	7.00 %	4.67
KK1	CLO-4	Final Test	20.00 %	55.00
KK1	CLO-4	Independent Assignment	7.00 %	4.67
KK1	CLO-4	Case Studies	9.00 %	5.55
KK1	CLO-4	Case Studies	7.00 %	4.97
KK2	CLO-1	Mid Test	18.00 %	11.17
KK2	CLO-1	Case Studies	5.00 %	80.00
KK2	CLO-1	Case Studies	10.00 %	68.50
KK2	CLO-1	Independent Assignment	7.00 %	4.67
KK2	CLO-1	Case Studies	7.00 %	4.97
KK2	CLO-1	Independent Assignment	10.00 %	70.50
KK2	CLO-1	Case Studies	9.00 %	5.55
KK2	CLO-1	Final Test	20.00 %	55.00
KK2	CLO-2	Mid Test	18.00 %	11.17
KK2	CLO-2	Final Test	20.00 %	55.00
KK2	CLO-2	Case Studies	9.00 %	5.55
KK2	CLO-2	Case Studies	7.00 %	4.97
KK2	CLO-2	Independent Assignment	7.00 %	4.67
KK2	CLO-2	Independent Assignment	10.00 %	70.50
KK2	CLO-2	Case Studies	10.00 %	68.50
KK2	CLO-2	Case Studies	5.00 %	80.00
KK2	CLO-3	Case Studies	7.00 %	4.97
KK2	CLO-3	Case Studies	9.00 %	5.55
KK2	CLO-3	Mid Test	18.00 %	11.17

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KK2	CLO-3	Independent Assignment	7.00 %	4.67
KK2	CLO-3	Independent Assignment	10.00 %	70.50
KK2	CLO-3	Case Studies	10.00 %	68.50
KK2	CLO-3	Final Test	20.00 %	55.00
KK2	CLO-4	Case Studies	7.00 %	4.97
KK2	CLO-4	Case Studies	9.00 %	5.55
KK2	CLO-4	Independent Assignment	7.00 %	4.67
KK2	CLO-4	Final Test	20.00 %	55.00

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	0.00%
CLO-2	0.00%
CLO-3	0.00%
CLO-4	0.00%
CLO-5	0.00%

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 .

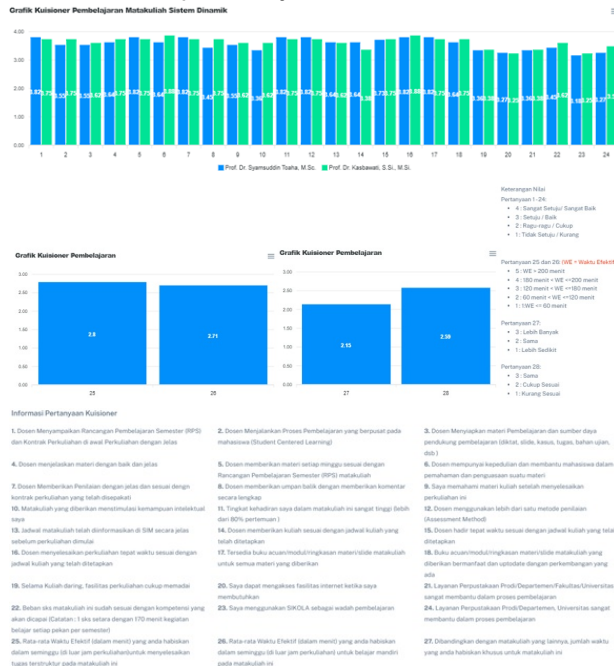
Course Grade

Course Grade	Number and Percentage of Students
A	0 (0.0%)
A-	0 (0.0%)
B+	0 (0.0%)
B	0 (0.0%)
B-	0 (0.0%)
C+	0 (0.0%)
C	0 (0.0%)
D	15 (75.0%)
E	5 (25.0%)

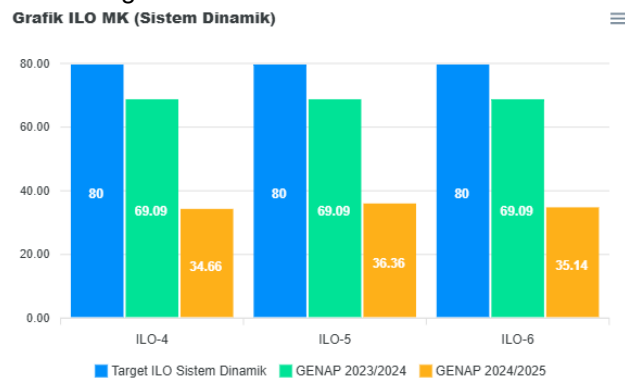
3. Learning evaluation (survey) results

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

Hasil Evaluasi pembelajaran Mata Kuliah Sistem Dinamik



Hasil Pengukuran CPL Mata Kuliah Sistem Dinamik



4. Analysis and Reflection

Analysis

1. Very Drastic Performance Decline from Below Standard Level

Data analysis shows an extremely drastic and critical decline in performance. Courses which in the EVEN 2023/2024 period were already below the target with an average achievement of 69, experienced a complete collapse in the EVEN 2024/2025 period, where scores dropped by more than 30 points to a very low level of an average of 35.

2. Uniform and Consistent Failure Patterns

The most prominent analytical fact is the very uniform performance pattern in both periods. In 2023/2024, all CPLs had almost identical scores (69), and in 2024/2025, they also fell to almost identical levels (~35). This uniformity is a strong indicator that the factors that influence performance have an even impact on all aspects of the course.

Reflection

1. Indication of a Fundamental Problem that is Getting Worse

A drastic decline from a level that was already below standard reflects the existence of a fundamental problem that has not been resolved and is actually getting worse. This is not simply a one-time incident, but rather a possible escalation of a pre-existing problem, exacerbated by significant negative changes in the recent period (e.g. in final evaluation methods or teaching processes).

2. Need for Emergency Investigation and Total Overhaul of RPS

This critical situation reflects that partial corrective measures will not be sufficient. An emergency investigation is needed to immediately find the cause of the decline in the last period. Furthermore, follow-up action cannot only aim to return performance to level 69, but must take the form of a total overhaul of the RPS such as course design, teaching methods and evaluation systems to raise achievement to the proper target of 80.

5. Follow-up Plan

Based on data on the significant decline in learning outcomes, it is necessary to carry out a comprehensive evaluation of the harmony between teaching materials, teaching methods and evaluation instruments in the Dynamic Systems Course. As a follow-up, an improvement strategy will be implemented that focuses on strengthening practical exercises and increasing the frequency of formative feedback to students. Through this intervention, it is hoped that learning outcomes in the following period can increase substantially and again reach the set targets.

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

Following up on emergency findings in the previous semester's evaluation for the Dynamical Systems Course, which showed a collapse in achievement from level 69 to 35, a total intervention plan has been implemented. This success proves the effectiveness of the fundamental overhaul, and it is recommended that this new structure, which includes validated assessments and intensive tutorials, be established as a permanent standard for future courses.

Makassar, 15 Oktober 2025

Prof. Dr. Syamsuddin Toaha, M.Sc.
NIP 196801141994121001