COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	ODD 2023/2024
Course Code	:	23H01130203
Course Name	:	Stochastic Processes
Coordinator	:	Jusmawati Massalesse, S.Si.,M.Si.
Lecturer Team Member	:	Dr. Firman, 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
Stochastic Process A	Jusmawati Massalesse, S.Si.,M.Si.	:	8 times	Number of students: 33 persons
	Dr. Firman, S.Si.,M.Si.	:	8 times	Presence ≥ 80% : 27 persons (81.82 %) Presence < 80% : 7 persons (21.21 %)
	Total Meeting : 16 times.			
Stochastic Process B	Jusmawati Massalesse, S.Si.,M.Si.	:	8 times	Number of students: 28 persons
	Dr. Firman, S.Si.,M.Si.	:	8 times	Presence ≥ 80% : 23 persons (82.14 %) Presence < 80% : 5 persons (17.86 %)
	Total Meeting : 16 times.			

Materials/practicum provided

1. Introduction to Stochastic Processes and relations with Random Variables and Probability (Introduction to Stochastic Processes and relations with Random Variables and Probability)

2. Probability and Joint Distribution in Stochastic Processes

3. Conditional probabilities and events (Conditional Distribution and Moments)

4. Markov Chain (Markov Chain)

5. Poisson Process (Poisson Processes)

6. Markov Processes

7. Pure Birth and Death Processes

8. Renewal Processes

The learning methods implemented

Self-Directed Learning, Case Study, Cooperative learning, Problem-based Learning, Discovery Learning, Small Group Discussion

The assessment method implemented

1. Quiz
2. Case Studies
3. Short Q&A
4. Mid Test
5. 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	Independent Assignment	5.00 %	87.05
KU2	CLO-1	Independent Assignment	5.00 %	87.05
KU2	CLO-1	Quiz	10.00 %	73.42
KU2	CLO-1	Independent Assignment	5.00 %	87.05
KU2	CLO-1	Quiz	10.00 %	73.42
KU2	CLO-1	Short Q&A	5.00 %	73.42
KU2	CLO-1	Short Q&A	5.00 %	73.42
KU2	CLO-1	Quiz	10.00 %	73.42
KU2	CLO-1	Short Q&A	5.00 %	73.42
KU2	CLO-2	Short Q&A	5.00 %	73.42
KU2	CLO-2	Quiz	10.00 %	73.42
KU2	CLO-2	Short Q&A	3.00 %	65.66
KU2	CLO-2	Case Studies	35.00 %	80.12
KU2	CLO-2	Short Q&A	5.00 %	73.42
KU2	CLO-2	Case Studies	35.00 %	80.12

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KU2	CLO-2	Mid Test	20.00 %	55.89
KU2	CLO-2	Quiz	10.00 %	73.42
KU2	CLO-2	Mid Test	20.00 %	55.26
KU2	CLO-2	Mid Test	20.00 %	55.26
KU2	CLO-2	Quiz	10.00 %	73.42
KU2	CLO-2	Short Q&A	3.00 %	65.66
KU2	CLO-2	Case Studies	35.00 %	80.12
KU2	CLO-2	Short Q&A	3.00 %	72.95
KU2	CLO-2	Quiz	7.00 %	55.03
KU2	CLO-2	Quiz	7.00 %	55.03
KU2	CLO-2	Short Q&A	5.00 %	73.42
KU2	CLO-2	Quiz	7.00 %	55.03
KK1	CLO-2	Quiz	7.00 %	55.03
KK1	CLO-2	Case Studies	35.00 %	80.12
KK1	CLO-2	Quiz	10.00 %	73.42
KK1	CLO-2	Quiz	10.00 %	73.42
KK1	CLO-2	Mid Test	20.00 %	55.26
KK1	CLO-2	Quiz	7.00 %	55.03
KK1	CLO-2	Mid Test	20.00 %	55.26
KK1	CLO-2	Short Q&A	5.00 %	73.42
KK1	CLO-2	Mid Test	20.00 %	55.89
KK1	CLO-2	Short Q&A	3.00 %	65.66
KK1	CLO-2	Quiz	10.00 %	73.42
KK1	CLO-2	Case Studies	35.00 %	80.12
KK1	CLO-2	Quiz	7.00 %	55.03
KK1	CLO-2	Case Studies	35.00 %	80.12
KK1	CLO-2	Short Q&A	5.00 %	73.42
KK1	CLO-2	Short Q&A	3.00 %	72.95
KK1	CLO-2	Short Q&A	5.00 %	73.42
KK1	CLO-2	Short Q&A	3.00 %	65.66
KK1	CLO-3	Case Studies	35.00 %	80.12
KK1	CLO-3	Case Studies	35.00 %	80.12

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KK1	CLO-3	Case Studies	35.00 %	80.12
KK1	CLO-3	Case Studies	15.00 %	77.18
KK1	CLO-3	Case Studies	15.00 %	77.18
KK1	CLO-3	Case Studies	15.00 %	77.18
KK3	CLO-2	Quiz	10.00 %	73.42
KK3	CLO-2	Case Studies	35.00 %	80.12
KK3	CLO-2	Short Q&A	5.00 %	73.42
KK3	CLO-2	Quiz	7.00 %	55.03
KK3	CLO-2	Quiz	7.00 %	55.03
KK3	CLO-2	Quiz	7.00 %	55.03
KK3	CLO-2	Short Q&A	5.00 %	73.42
KK3	CLO-2	Short Q&A	3.00 %	72.95
KK3	CLO-2	Short Q&A	3.00 %	65.66
KK3	CLO-2	Short Q&A	3.00 %	65.66
KK3	CLO-2	Short Q&A	5.00 %	73.42
KK3	CLO-2	Case Studies	35.00 %	80.12
KK3	CLO-2	Case Studies	35.00 %	80.12
KK3	CLO-2	Quiz	10.00 %	73.42
KK3	CLO-2	Mid Test	20.00 %	55.89
KK3	CLO-2	Mid Test	20.00 %	55.26
KK3	CLO-2	Mid Test	20.00 %	55.26
KK3	CLO-2	Quiz	10.00 %	73.42
KK3	CLO-3	Case Studies	15.00 %	77.18
KK3	CLO-3	Case Studies	15.00 %	77.18
KK3	CLO-3	Case Studies	15.00 %	77.18
KK3	CLO-3	Case Studies	35.00 %	80.12
KK3	CLO-3	Case Studies	35.00 %	80.12
KK3	CLO-3	Case Studies	35.00 %	80.12
S1	CLO-1	Independent Assignment	5.00 %	87.05
S1	CLO-1	Short Q&A	5.00 %	73.42
S1	CLO-1	Short Q&A	5.00 %	73.42

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
S1	CLO-1	Short Q&A	5.00 %	73.42
S1	CLO-1	Quiz	10.00 %	73.42
S1	CLO-1	Quiz	10.00 %	73.42
S1	CLO-1	Quiz	10.00 %	73.42
S1	CLO-1	Independent Assignment	5.00 %	87.05
S1	CLO-1	Independent Assignment	5.00 %	87.05
S2	CLO-3	Case Studies	35.00 %	80.12
S2	CLO-3	Case Studies	35.00 %	80.12
S2	CLO-3	Case Studies	15.00 %	77.18
S2	CLO-3	Case Studies	15.00 %	77.18
S2	CLO-3	Case Studies	15.00 %	77.18
S2	CLO-3	Case Studies	35.00 %	80.12

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	65.57%
CLO-2	19.67%
CLO-3	88.52%
CLO-1	65.57%
CLO-2	18.03%
CLO-3	88.52%
CLO-1	65.57%
CLO-2	18.03%
CLO-3	88.52%
CLO-1	0.00%
CLO-2	0.00%
CLO-3	0.00%

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

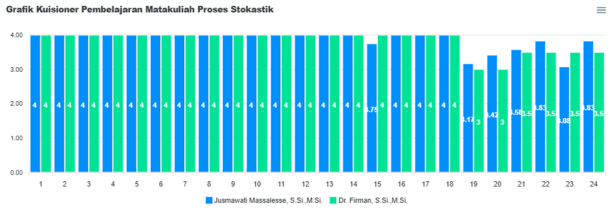
Course Grade

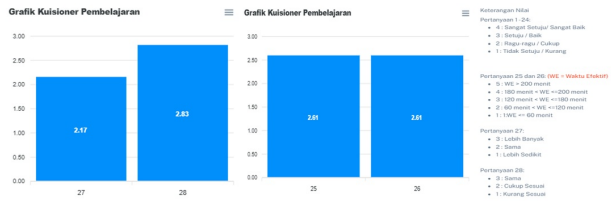
Course Grade	Number and Percentage of Students
A	8 (13.1%)
A-	9 (14.8%)
B+	23 (37.7%)
B	10 (16.4%)
B-	5 (8.2%)
C+	2 (3.3%)
C	1 (1.6%)
D	0 (0.0%)
E	3 (4.9%)

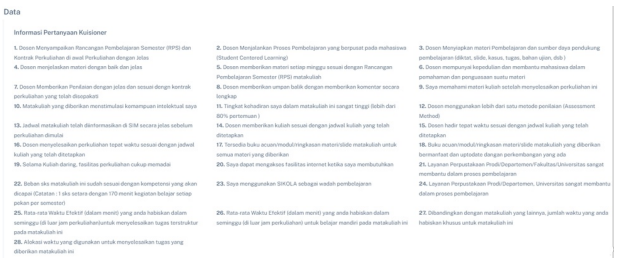
3. Learning evaluation (survey) results

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

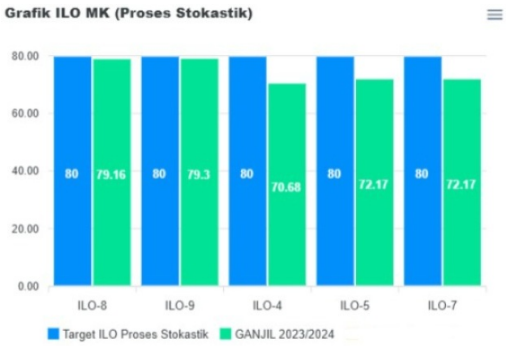
Hasil Evaluasi Pembelajaran Matakuliah Proses Stokastik







Hasil Perhitungan CPL Mata Kuliah Proses Stokastik



4. Analysis and Reflection

Analysis and Reflection

Analysis

Analysis of the data shows that the performance of the Stochastic Processes Course generally varies. There are several aspects of learning outcomes that show very good performance and almost reach the targets that have been set, indicating strength in these areas. However, on the other hand, there are also several other aspects of learning outcomes whose performance is still below the expected standards, with some of them showing more significant gaps from the target.

Reflection

This varying performance reflects that the existing problems are most likely not fundamental to the entire course, but rather specific to certain topics or methods related to low achievement. Success in some aspects can be used as internal "good practices" that need to be analyzed more deeply. Therefore, the most effective follow-up is to identify teaching and evaluation strategies that have been successful in areas of excellence, and then adapt these approaches to lift performance in areas that are still lagging behind in a focused manner.

5. Follow-up Plan

Responding to varying performance in the Stochastic Processes Course, where there are areas that are very good and other areas that are still below target. The follow-up plan will implement a focused diagnostic approach. This step will center on analyzing success factors from superior performance aspects to be adapted and implemented as improvement strategies in areas that are still below standard, with priority on areas that show the most significant gaps. The aim is to lift performance in specific weak areas, so that learning outcomes are achieved more evenly and all can meet the expected targets.

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

Following up on the findings of the previous semester's evaluation for the Stochastic Processes Course, which identified varying performance with areas of excellence and others lagging behind, a focused diagnostic action plan has been implemented. Areas that have not met the expected targets, this targeted improvement approach is recommended for improvement

Makassar, 21 Oktober 2025

Jusmawati Massalesse, S.Si.,M.Si.
NIP 196806011995122001