# **COURSE PORTFOLIO**

Study Program : MATHEMATICS - S1

Semester : EVEN 2024/2025

Course Code : 23H01121703
Course Name : Coding Theory

Coordinator : Dr. Muhammad Zakir, M.Si.

Lecturer Team Member : Muhammad Sadno, S.Si., M.Si, Dr. Muhammad Zakir, 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 Attendanc	e		Student Attendance	
	Dr. Muhammad Zakir, M.Si.	:	8 times	Number of students: 22 persons	
Coding Theory	Muhammad Sadno, S.Si., M.Si	:	8 times	Presence ≥ 80% : 19 persons (86.36 %)	
	Total Meeting : 16 times.			Presence < 80% : 3 persons (13.64 %)	

#### Materials/practicum provided

- 1. Introduction to coding
- 2. Liner code
- 3. Perfect code
- 4. Cyclic linear code

# The learning methods implemented

Collaborative learning, Case Study

# The assessment method implemented

- 1. Quiz
- 2. Project Based
- 3. Independent Assignment

# Supplementary information (if available)

None

# 2. Learning Outcomes

# **Measurement results of CLO**

Assessment and Evaluation of Student Achievement of CLO<sup>a</sup>

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)	
ILO 1	CLO-1	Independent Assignment	10.00 %	65.02	
ILO 1	CLO-1	Quiz	20.00 %	76.63	
P2	CLO-2	Independent Assignment	10.00 %	88.07	
P2	CLO-2	Project Based	10.00 %	81.56	
KU1	CLO-3	Project Based	10.00 %	81.91	
KU1	CLO-3	Quiz	20.00 %	71.12	
KU1	CLO-4	Independent Assignment	10.00 %	88.07	
KU1	CLO-4	Quiz	20.00 %	71.12	

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 <sup>b</sup>

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

CLO	% of students who achieved a CLO score of at least 80
CLO-1	22.73%
CLO-2	77.27%
CLO-3	54.55%
CLO-4	54.55%

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**

Number and Percentage of Students
5 (22.7%)
4 (18.2%)
6 (27.3%)
4 (18.2%)
0 (0.0%)
2 (9.1%)
0 (0.0%)
0 (0.0%)

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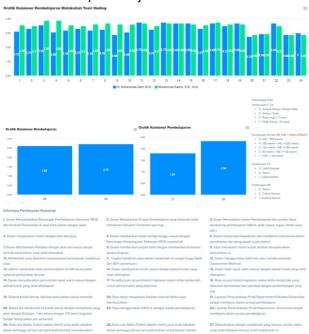
#### **Number and Percentage of Students**

E 1 (4.5%)

#### 3. Learning evaluation (survey) results

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

#### Hasil Evaluasi pembelajaran Mata Kuliah Teori Koding



#### Hasil Pengukuran CPL Mata Kuliah Teori Koding Grafik ILO MK (Teori Koding)



#### 4. Analysis and Reflection

#### **Analysis**

# 1. Performance Decline from Superior Level to Below Target

Data analysis shows a general downward trend in performance. Courses which in the EVEN 2023/2024 period showed very superior performance with all CPLs exceeding the target of 80, in the EVEN 2024/2025 period experienced a decline. As a result, two of the three CPLs, namely ILO-1 (score 70.82) and ILO-3 (score 74.51), have now fallen below the set target standard.

#### 2. Pattern of Uneven Decline with the Presence of Resilient Areas

The decline that occurred was not evenly distributed in all areas. ILO-1 experienced the sharpest decline (down 14 points) and ILO-3 also fell significantly (down 11 points). However, ILO-2 shows excellent

resilience; its performance remained at a superior level with a score of 83.19, still far above the target of 80, although a slight decline from the previous period.

#### Reflection

1. Indication of Specific Problems, Not Systemic Failure

ILO-2 performance which remains very strong reflects that the problems that occur are most likely not systemic or fundamental to the entire course. Rather, it indicates the presence of more specific and localized problems with content, teaching methods, or evaluation instruments that are directly related to ILO-1 and ILO-3. This allows the improvement process to be more focused.

2. The Importance of Analyzing Internal Good Practices for Improvement

ILO-2 Resilience can be reflected as an "internal good practice" that must be studied. Before looking for external solutions, the most effective first step is to analyze: "What is different and successful about ILO-2 teaching and evaluation?". The answer to this question has great potential to be the key to correcting the weaknesses that are currently appearing in ILO-1 and ILO-3, so that improvements can be made by adapting methods that have been proven successful in the same class.

#### 5. Follow-up Plan

Following up on the decline in ILO-1 and ILO-3 achievements in the Coding Theory Course, in-depth analysis shows that the main problem stems from low student scores on specific assessment components, namely Independent Assignments for CPMK-1 (score 65.02) and Quizzes for CPMK-3 and CPMK-4 (score 71.12). Therefore, the improvement plan will focus on two concrete actions: first, revising the design and instructions of the CPMK-1 Independent Assignment to ensure clarity and conformity with the material; and second, strengthening learning sessions and adding relevant practice questions before implementing quizzes related to CPMK-3 and CPMK-4 to increase student readiness. By strengthening these components which have proven to be weak, it is hoped that the overall achievements of the CPL can be raised significantly again to exceed the target in the next evaluation period.

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

Following up on the results of the previous evaluation of the Coding Theory Course, which showed an uneven decline in achievement where ILO-1 and ILO-3 fell below target while ILO-2 remained superior, a focused improvement plan has been implemented. This strategy involves analyzing good practices from ILO-2 and adapting teaching and evaluation methods to strengthen ILO-1 and ILO-3 areas. This success proves the effectiveness of an approach that replicates internal strengths to overcome specific weaknesses, and is recommended as a model for future improvements.

Makassar, 15 Oktober 2025

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