### **COURSE PORTFOLIO**

Study Program : MATHEMATICS - S1

Semester : ODD 2023/2024

Course Code : 23H01131303

Course Name : Cryptography

Coordinator : Muhammad Sadno, S.Si., M.Si

Lecturer Team Member Muhammad Sadno, S.Si., M.Si, Dra. Nur Erawati, M.Si., Dr. Andi

Muhammad Anwar, 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
	Dra. Nur Erawati, M.Si.	:	6 times	
Cryptography	Dr. Andi Muhammad Anwar, S.Si., M.Si	:	5 times	Number of students: 21 persons  Presence ≥ 80%: 20 persons
	Muhammad Sadno, S.Si., M.Si	:	5 times	(95.24 %) Presence < 80% : 1 person (4.76 %)
	Total Meeting : 16 times.			

### Materials/practicum provided

- 1. Data communication security in computer networks (Data communication security in computer networks)
- 2. Explanation of Classical Cryptography (Classical Cryptography expalnation)
- 3. Reviewing algebra concepts about Groups, Rings and Fields (Algebra concepts about Groups, Rings, and Fields review)
- 4. Explanation of Modern Symmetric Cryptography explanation
- 5. Explains the DES block password (DES block password explanation)
- 6. Reviewing the concept of number theory on Public Key Cryptography (The concept of number theory on Public-key Cryptography)
- 7. Explaining Public Key Cryptography (Public-key Cryptography Explanation)
- 8. Explaining the Hashing Function for Cryptography (Hashing Function for Cryptography Explanation)
- 9. Explaining digital signatures (digital signature explanation)

# The learning methods implemented

Case Study, Collaborative Learning, Role-Play & Simulation, Case Study, Cooperative learning

## The assessment method implemented

- 1. Quiz
- 2. Case Studies
- 3. Mid Test
- 4. Final Test

## 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	Quiz	10.00 %	71.48
ILO 1	CLO-1	Final Test	15.00 %	68.57
ILO 1	CLO-1	Case Studies	15.00 %	88.95
ILO 1	CLO-1	Mid Test	15.00 %	69.90
ILO 1	CLO-1	Case Studies	10.00 %	84.38
ILO 1	CLO-3	Mid Test	15.00 %	69.90
P2	CLO-1	Quiz	10.00 %	71.48
P2	CLO-1	Final Test	15.00 %	68.57
P2	CLO-1	Case Studies	15.00 %	88.95
P2	CLO-1	Mid Test	15.00 %	69.90
P2	CLO-1	Case Studies	10.00 %	84.38
P2	CLO-2	Case Studies	10.00 %	86.24
P2	CLO-2	Final Test	15.00 %	68.57
P2	CLO-2	Mid Test	15.00 %	69.90
P2	CLO-2	Case Studies	5.00 %	86.62
P2	CLO-2	Case Studies	15.00 %	88.95
P2	CLO-2	Quiz	10.00 %	73.14
KK2	CLO-2	Mid Test	15.00 %	69.90
KK2	CLO-2	Case Studies	5.00 %	86.62
KK2	CLO-2	Case Studies	15.00 %	88.95

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KK2	CLO-2	Quiz	10.00 %	73.14
KK2	CLO-2	Final Test	15.00 %	68.57
KK2	CLO-2	Case Studies	10.00 %	86.24
KK2	CLO-3	Mid Test	15.00 %	69.90

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	23.81%
CLO-2	28.57%
CLO-3	9.52%

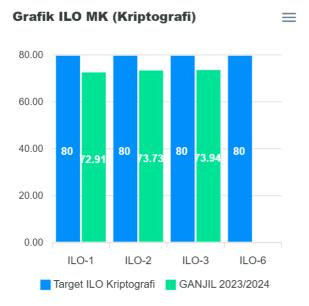
b: result criteria: very satisfactory if ≥80% of students score ≥80; satisfactory if 70%-79.9% of students score ≥80; less satisfactory if < 70% of students score ≥80.

### **Course Grade**

Course Grade	Number and Percentage of Students
А	6 (28.6%)
A-	3 (14.3%)
B+	10 (47.6%)
В	1 (4.8%)
B-	0 (0.0%)
C+	0 (0.0%)
С	0 (0.0%)
D	0 (0.0%)
Е	1 (4.8%)

### 3. Learning evaluation (survey) results

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



Hasil Pengukuran CPL Mata kuliah Kriptografi

### 4. Analysis and Reflection

Analysis and Reflection

### **Analysis**

Analysis of the data shows that the performance of the Cryptography Course is at a good level, but has not succeeded in achieving the expected targets. Learning outcomes in all aspects measured are consistently slightly below the established standards. Apart from that, the analysis also revealed crucial deficiencies in the evaluation process, where one of the learning outcomes that should have been measured had no outcome data at all, which indicated incompleteness in the monitoring process.

### Reflection

Good performance but not yet reaching this target reflects that the learning foundation in this course is strong enough, but requires optimization strategies to push achievement to a superior level. On the other hand, the absence of data for one of the learning outcomes is a critical reflection on the integrity of the evaluation process itself. This shows that there are weaknesses in monitoring procedures that need to be immediately corrected, because without complete data, a comprehensive evaluation of course success cannot be carried out in an accountable manner.

### 5. Follow-up Plan

In response to good performance but not yet reaching targets in the Cryptography Course, as well as incomplete achievement data, the follow-up plan will implement a dual approach. First, there will be optimization of learning content through strengthening training sessions and practical case studies to provide the final push needed so that achievements can exceed targets. Second, an audit and total overhaul of the monitoring and evaluation process will be carried out to ensure that all aspects of learning, including those where data is missing, can be measured accountably in the next period.

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

Following up on the findings of the previous semester's evaluation for the Cryptography Course, which identified good performance but not yet achieved targets and incomplete data, a dual action plan has been implemented. This follow-up focuses on optimizing learning content and improving the total monitoring process. The quality of learning needs to be improved, and the integrity of the evaluation

system now also needs to be improved in the next semester

Makassar, 24 Oktober 2025

Muhammad Sadno, S.Si., M.Si NIP 199008162022043001