

## COURSE PORTFOLIO

Study Program	: MATHEMATICS - S1
Semester	: ODD 2024/2025
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
Cryptography	Dra. Nur Erawati, M.Si.	: 6 times
	Dr. Andi Muhammad Anwar, S.Si., M.Si	: 5 times
	Muhammad Sadno, S.Si., M.Si	: 5 times
	Total Meeting : 16 times.	
		Number of students: 30 persons
		Presence $\geq$ 80% : 29 persons (96.67 %)
		Presence < 80% : 1 person (3.33 %)

### Materials/practicum provided

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

### The learning methods implemented

#### Meeting 1

Lecture: Other methods Lecture

Time: 3x50

#### Meeting 2

Lecture: Case Study (Case Study), Learning collaborative (Collaborative Learning)

Time: 3x50

#### 3-4 Meetings

Lecture: Simulation (Role-Play & Simulation), Method others

Time: 2 x 3x50

#### 5 Meetings

Lecture: Other methods Lecture

Time: 3x50

#### 6-7 Meetings

Lecture: Case Study (Case Study), Learning cooperative (Cooperative learning)

Time: 2 x 3x50

#### Meeting 8

Midterm Exam

#### Meeting 9

Lecture: Case Study (Case Study), Learning cooperative (Cooperative learning)

Time: 3 x 50

10-11 Meeting

Lecture: Other methods Lecture

Time: 2 x 3x50

12-13 Meeting

Lecture: Group discussion (Small Group Discussion), Study Case (Case Study), Learning cooperative (Cooperative learning)

Time: 2x3x50

14 meetings

Lecture: Other methods Lecture

Time: 3 x 50

15 meetings

Lectures: Group discussion (Small Group Discussion), Study Case (Case Study)

Time: 3 x 50

16th Meeting

Final Semester Exam

#### 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	25.00 %	72.97
ILO 1	CLO-1	Final Test	20.00 %	67.74
ILO 1	CLO-1	Case Studies	10.00 %	64.83
ILO 1	CLO-1	Mid Test	10.00 %	78.33
ILO 1	CLO-3	Mid Test	10.00 %	78.33
P2	CLO-1	Final Test	20.00 %	67.74
P2	CLO-1	Quiz	25.00 %	72.97
P2	CLO-1	Mid Test	10.00 %	78.33
P2	CLO-1	Case Studies	10.00 %	64.83
P2	CLO-2	Final Test	20.00 %	67.74
P2	CLO-2	Mid Test	10.00 %	78.33
P2	CLO-2	Case Studies	10.00 %	82.33
P2	CLO-2	Quiz	25.00 %	72.97
P2	CLO-2	Case Studies	25.00 %	78.83
KK2	CLO-2	Mid Test	10.00 %	78.33
KK2	CLO-2	Case Studies	10.00 %	82.33
KK2	CLO-2	Quiz	25.00 %	72.97
KK2	CLO-2	Final Test	20.00 %	67.74
KK2	CLO-2	Case Studies	25.00 %	78.83
KK2	CLO-3	Mid Test	10.00 %	78.33

a: result criteria: very satisfactory if the average score is  $\geq 80$ ; 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	60.00%

CLO	% of students who achieved a CLO score of at least 80
CLO-2	66.67%
CLO-3	63.33%

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.

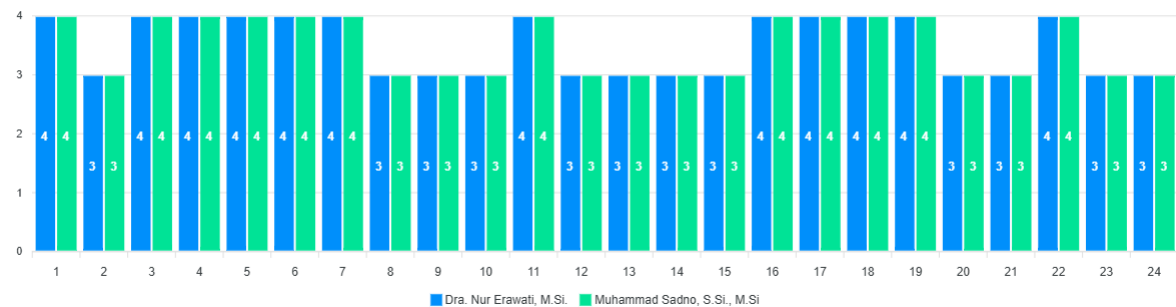
#### Course Grade

Course Grade	Number and Percentage of Students
A	13 (43.3%)
A-	7 (23.3%)
B+	2 (6.7%)
B	2 (6.7%)
B-	0 (0.0%)
C+	2 (6.7%)
C	0 (0.0%)
D	0 (0.0%)
E	4 (13.3%)

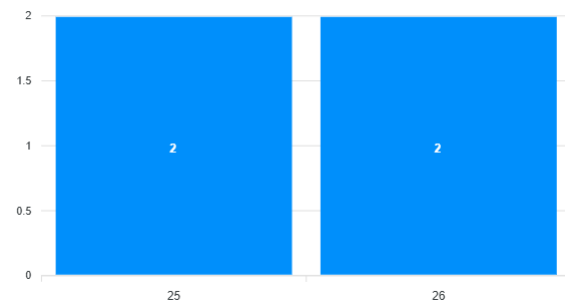
### 3. Learning evaluation (survey) results

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

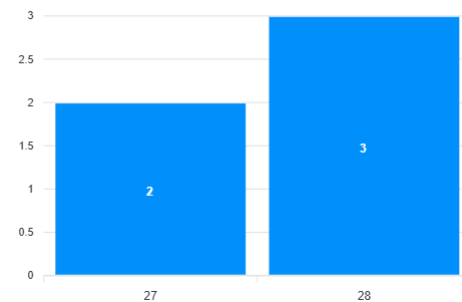
**Grafik Kuisi oner Pembelajaran Mata kuliah Kriptografi**



**Grafik Kuisi oner Pembelajaran**



**Grafik Kuisi oner Pembelajaran**



Keterangan Nilai

Pertanyaan 1-24:

- 4 : Sangat Setuju/ Sangat Baik
- 3 : Setuju / Baik
- 2 : Ragu-ragu / Cukup
- 1 : Tidak Setuju / Kurang

Pertanyaan 25 dan 26: (WE = Waktu Efektif)

- 5 : WE > 200 menit
- 4 : 180 menit < WE <=200 menit
- 3 : 120 menit < WE <=180 menit
- 2 : 60 menit < WE <=120 menit
- 1 : 1WE <= 60 menit

Pertanyaan 27:

- 3 : Lebih Banyak
- 2 : Sama
- 1 : Lebih Sedikit

Pertanyaan 28:

- 3 : Sama
- 2 : Cukup Sesuai
- 1 : Kurang Sesuai

#### Informasi Pertanyaan Kuisioner

1. Dosen Menyampaikan Rancangan Pembelajaran Semester (RPS) dan Kontrak Perkuliahan di awal Perkuliahan dengan Jelas

4. Dosen menjelaskan materi dengan baik dan jelas

7. Dosen Memberikan Penilaian dengan jelas dan sesuai dengan kontrak perkuliahan yang telah disepakati

10. Matakuliah yang diberikan menstimulasi kemampuan intelektual saya

13. Jadwal matakuliah telah diinformasikan di SIM secara jelas sebelum perkuliahan dimulai

16. Dosen menyelesaikan perkuliahan tepat waktu sesuai dengan jadwal kuliah yang telah ditetapkan

19. Selama Kuliah daring, fasilitas perkuliahan cukup memadai

22. Beban sks matakuliah ini sudah sesuai dengan kompetensi yang akan dicapai (Catatan : 1 sks setara dengan 170 menit kegiatan belajar setiap pekan per semester)

25. Rata-rata Waktu Efektif (dalam menit) yang anda habiskan dalam seminggu (di luar jam perkuliahan) untuk menyelesaikan tugas terstruktur pada matakuliah ini

28. Alokasi waktu yang digunakan untuk menyelesaikan tugas yang diberikan matakuliah ini

2. Dosen Menjalankan Proses Pembelajaran yang berpusat pada mahasiswa (Student Centered Learning)

5. Dosen memberikan materi setiap minggu sesuai dengan Rancangan Pembelajaran Semester (RPS) matakuliah

8. Dosen memberikan umpan balik dengan memberikan komentar secara lengkap

11. Tingkat kehadiran saya dalam matakuliah ini sangat tinggi (lebih dari 80% pertemuan)

14. Dosen memberikan kuliah sesuai dengan jadwal kuliah yang telah ditetapkan

17. Tersedia buku acuan/modul/ringkasan materi/slide matakuliah untuk semua materi yang diberikan

20. Saya menggunakan SIKOLA sebagai wadah pembelajaran

23. Saya menggunakan SIKOLA sebagai wadah pembelajaran

26. Rata-rata Waktu Efektif (dalam menit) yang anda habiskan dalam seminggu (di luar jam perkuliahan) untuk belajar mandiri pada matakuliah ini

3. Dosen Menyiapkan materi Pembelajaran dan sumber daya pendukung pembelajaran (diktat, slide, kasus, tugas, bahan ujian, dsb)

6. Dosen mempunyai kepedulian dan membantu mahasiswa dalam pemahaman penguasaan suatu materi

9. Saya memahami materi kuliah setelah menyelesaikan perkuliahan ini

12. Dosen menggunakan lebih dari satu metode penilaian (Assessment Methods)

15. Dosen hadir tepat waktu sesuai dengan jadwal kuliah yang telah ditetapkan

18. Buku acuan/modul/ringkasan materi/slide matakuliah yang diberikan benar dan up to date dengan perkembangan yang ada

21. Layanan Perpustakaan Prodi/Departemen/Fakultas/Universitas sangat membantu dalam proses pembelajaran

24. Layanan Perpustakaan Prodi/Departemen/Universitas sangat membantu dalam proses pembelajaran

27. Dibandingkan dengan matakuliah yang lainnya, jumlah waktu yang anda habiskan khusus untuk matakuliah ini

Grafik CPL MK (Kriptografi)



Hasil Pengukuran CPL MK Kriptografi

#### 4. Analysis and Reflection

Analysis and Reflection

There has been progress compared to the previous year, but lecturers still feel the need to evaluate achievements and learning methods.

#### 5. Follow-up Plan

In response to the results of the CPL Cryptography Course which shows a positive improvement trend but the achievements are still below the target of 80, the action plan will focus on optimizing and strengthening the achievements. The main step is to identify the concepts that are most challenging for students and then provide additional learning resources, such as advanced case studies, to encourage deeper understanding. In parallel, it is necessary to audit the assessment plan to ensure that CPL-6, for which data is currently not available, can be measured and reported effectively in the following semester. The aim of this strategy is that student achievement can consistently exceed the set targets.

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

Plan for providing Remedial for students who have not achieve the expected CPL. Apart from that, learning methods will be prepared more effective.

Makassar, 24 Oktober 2025

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