

## COURSE PORTFOLIO

Study Program	: MATHEMATICS - S1
Semester	: ODD 2023/2024
Course Code	: 23H01120503
Course Name	: Numerical Methods
Coordinator	: Prof. Agustinus Ribal, S.Si.,M.Sc., Ph. D
Lecturer Team Member	: Prof. Agustinus Ribal, S.Si.,M.Sc., Ph. D, Prof. Dr. Syamsuddin Toaha, M.Sc.

### 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
Numerical Method B	Prof. Dr. Syamsuddin Toaha, M.Sc. : times	Number of students: 35 persons Presence $\geq 80\%$ : Presence $< 80\%$ :
	Prof. Agustinus Ribal, S.Si.,M.Sc., Ph. D : times	
	Total Meeting : times.	
Numerical Methods A	Prof. Dr. Syamsuddin Toaha, M.Sc. : times	Number of students: 40 persons Presence $\geq 80\%$ : Presence $< 80\%$ :
	Prof. Agustinus Ribal, S.Si.,M.Sc., Ph. D : times	
	Total Meeting : times.	

### Materials/practicum provided

Gagal diterjemahkan

### The learning methods implemented

Small Group Discussion

### The assessment method implemented

1. Case Studies
2. Mid Test
3. 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)
P2	CLO-1	Case Studies	10.00 %	79.49
P2	CLO-1	Final Test	25.00 %	79.49
P2	CLO-1	Case Studies	15.00 %	49.56
P2	CLO-1	Case Studies	5.00 %	73.90
P2	CLO-1	Mid Test	25.00 %	60.30
P2	CLO-2	Case Studies	10.00 %	29.26
P2	CLO-2	Final Test	25.00 %	79.49
P2	CLO-2	Case Studies	5.00 %	73.90
P2	CLO-2	Mid Test	25.00 %	60.30
P2	CLO-3	Case Studies	15.00 %	49.56
P2	CLO-3	Final Test	25.00 %	79.49
P2	CLO-3	Case Studies	10.00 %	54.38
P2	CLO-3	Mid Test	25.00 %	60.30
P2	CLO-3	Case Studies	5.00 %	73.90
P2	CLO-4	Case Studies	10.00 %	54.38
P2	CLO-4	Case Studies	5.00 %	73.90
P2	CLO-4	Mid Test	25.00 %	60.30
P2	CLO-4	Final Test	25.00 %	79.49
P2	CLO-4	Case Studies	15.00 %	49.56
KU1	CLO-1	Mid Test	25.00 %	60.30
KU1	CLO-1	Case Studies	5.00 %	73.90
KU1	CLO-1	Case Studies	10.00 %	79.49
KU1	CLO-1	Final Test	25.00 %	79.49
KU1	CLO-1	Case Studies	15.00 %	49.56
KU1	CLO-2	Case Studies	5.00 %	73.90
KU1	CLO-2	Mid Test	25.00 %	60.30
KU1	CLO-2	Case Studies	10.00 %	29.26
KU1	CLO-2	Final Test	25.00 %	79.49

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KK2	CLO-3	Case Studies	5.00 %	73.90
KK2	CLO-3	Case Studies	15.00 %	49.56
KK2	CLO-3	Final Test	25.00 %	79.49
KK2	CLO-3	Case Studies	10.00 %	54.38
KK2	CLO-3	Mid Test	25.00 %	60.30
KK3	CLO-4	Mid Test	25.00 %	60.30
KK3	CLO-4	Case Studies	10.00 %	54.38
KK3	CLO-4	Case Studies	15.00 %	49.56
KK3	CLO-4	Final Test	25.00 %	79.49
KK3	CLO-4	Case Studies	5.00 %	73.90
S2	CLO-2	Case Studies	10.00 %	29.26
S2	CLO-2	Final Test	25.00 %	79.49
S2	CLO-2	Mid Test	25.00 %	60.30
S2	CLO-2	Case Studies	5.00 %	73.90

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	40.00%
CLO-2	21.33%
CLO-3	33.33%
CLO-4	33.33%

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

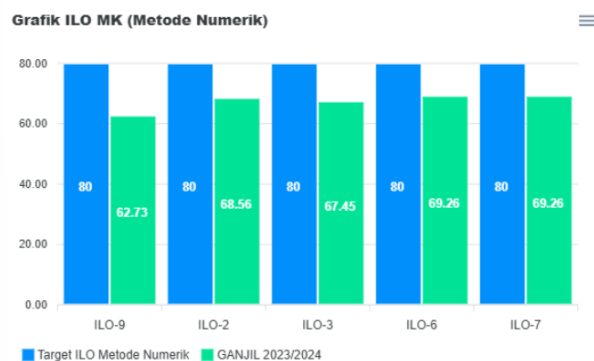
### Course Grade

Course Grade	Number and Percentage of Students
A	4 (5.3%)
A-	8 (10.7%)
B+	13 (17.3%)
B	18 (24.0%)
B-	13 (17.3%)
C+	8 (10.7%)

Course Grade	Number and Percentage of Students
C	3 (4.0%)
D	0 (0.0%)
E	8 (10.7%)

### 3. Learning evaluation (survey) results

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



Hasil Pengukuran CPL Mata Kuliah Metode Numerik

### 4. Analysis and Reflection

#### Analysis and Reflection

Analysis shows that the actual achievements in all indicators **well below the target of 80**. The highest achievement was in ILO-6 and ILO-7 at **69.26**, and the lowest achievement was in ILO-9 at **62.73**. The biggest deviation is in ILO-9, with a difference of **17.27 points** (80 - 62.73). Overall, this realization indicates that there are significant challenges in the learning process and students' mastery of Numerical Methods material. The low consistency of scores (range 62.73 to 69.26) indicates that there needs to be major and systematic intervention in the curriculum, teaching methods or evaluation instruments as a whole, not just in one particular aspect of ILO.

### 5. Follow-up Plan

The Follow-up Plan (RTL) must be comprehensive to overcome *large gaps*. This. First, carry out a total review of the curriculum and teaching materials to ensure alignment with the competencies measured by the ILO. It is necessary to consider whether the material has been presented in stages and with appropriate depth. Second, changing teaching methods by emphasizing problem-based learning (*problem-based learning*) and increase practicum/tutorial sessions that focus on the practical application of numerical methods, especially on aspects of **ILO-9**(lowest achievement). Third, **adjust the evaluation instrument** to ensure the assessment is valid, reliable, and truly measures the numerical problem solving abilities that are the core of this course. The main target for the next semester is **reducing the deviation to below 5 points**, with a minimum achievement target of 75 for all ILOs.

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

Realizations that are far below the target (range 62 to 69) indicate that improvements or follow-up that may have been carried out in the previous period have not been effective or have not been able to overcome fundamental challenges in mastering this material. These numbers show the need for a completely different strategy from what has been done before. This achievement becomes the basis for a strong evaluation, requiring the teaching team to immediately implement radical and structured RTL to avoid the recurrence of the large gap between target and realization in the period next.

Makassar, 24 Oktober 2025

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