COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	EVEN 2024/2025
Course Code	:	23H01122003
Course Name	:	Number Theory
Coordinator	:	Dr. Muhammad Zakir, M.Si.
Lecturer Team Member	:	Nur Rohmah Oktaviani Putri, 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 Attendance			Student Attendance
Number Theory	Dr. Muhammad Zakir, M.Si. Nur Rohmah Oktaviani Putri, S.Si., M.Si Total Meeting : 16 times.	: :	8 times 8 times	Number of students: 36 persons Presence ≥ 80% : 36 persons (100.00 %) Presence < 80% : 0 person (0.00 %)
Number Theory	Total Meeting : times.			Number of students: 0 persons Presence ≥ 80% : Presence < 80% :

Materials/practicum provided

1. Division

2. Euclid Algorithm (Euclid Algoritm)

3. Common Divisor

4. Shared Multiple

5. Prima (Prime)

6. Congruence (congruence)

7. Complete and Reduced Residue Systems

8. Linear Congruence and Diophantine Equations

9. Euler's generalization and its application Ubuntu, Cantarell, "Fira Sans", "Droid Sans", "Helvetica Neue", sans-serif;">10. Chinese Remainder Theorem

11. Euler's function Sans", "Droid Sans", "Helvetica Neue", sans-serif;">12. Prime Power Modulo (Quadratic prime modulo)

The learning methods implemented

Discovery Learning, Study Case

The assessment method implemented

1. Case Studies
2. Mid Test
3. Final Test
4. 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)
ILO 1	CLO-1	Independent Assignment	20.00 %	92.75
P2	CLO-2	Independent Assignment	20.00 %	92.75
P2	CLO-2	Case Studies	10.00 %	82.50
P2	CLO-2	Mid Test	20.00 %	90.50
P2	CLO-2	Case Studies	15.00 %	87.04
P2	CLO-2	Final Test	20.00 %	84.72
KU1	CLO-3	Case Studies	15.00 %	87.04
KU1	CLO-4	Case Studies	15.00 %	86.67
KU1	CLO-5	Mid Test	20.00 %	90.50
KU1	CLO-5	Case Studies	15.00 %	87.41
KU1	CLO-5	Final Test	20.00 %	84.72

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	100.00%
CLO-2	86.11%

CLO	% of students who achieved a CLO score of at least 80
CLO-3	75.00%
CLO-4	75.00%
CLO-5	75.00%

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.

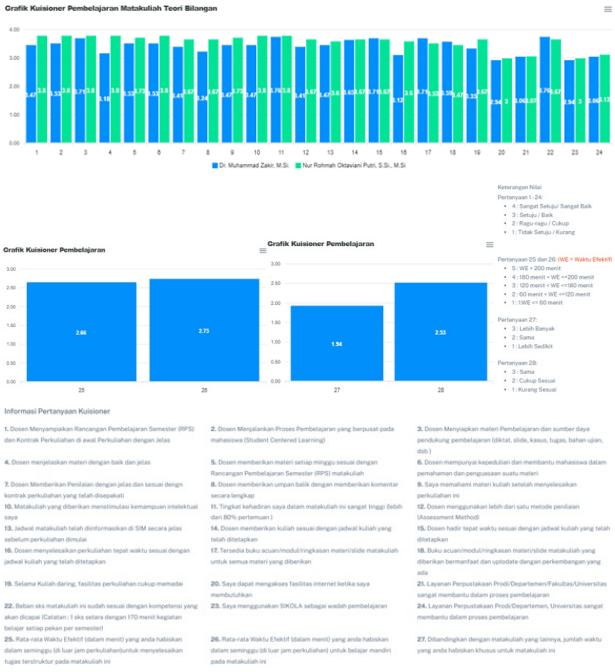
Course Grade

Course Grade	Number and Percentage of Students
A	24 (66.7%)
A-	5 (13.9%)
B+	4 (11.1%)
B	2 (5.6%)
B-	0 (0.0%)
C+	1 (2.8%)
C	0 (0.0%)
D	0 (0.0%)
E	0 (0.0%)

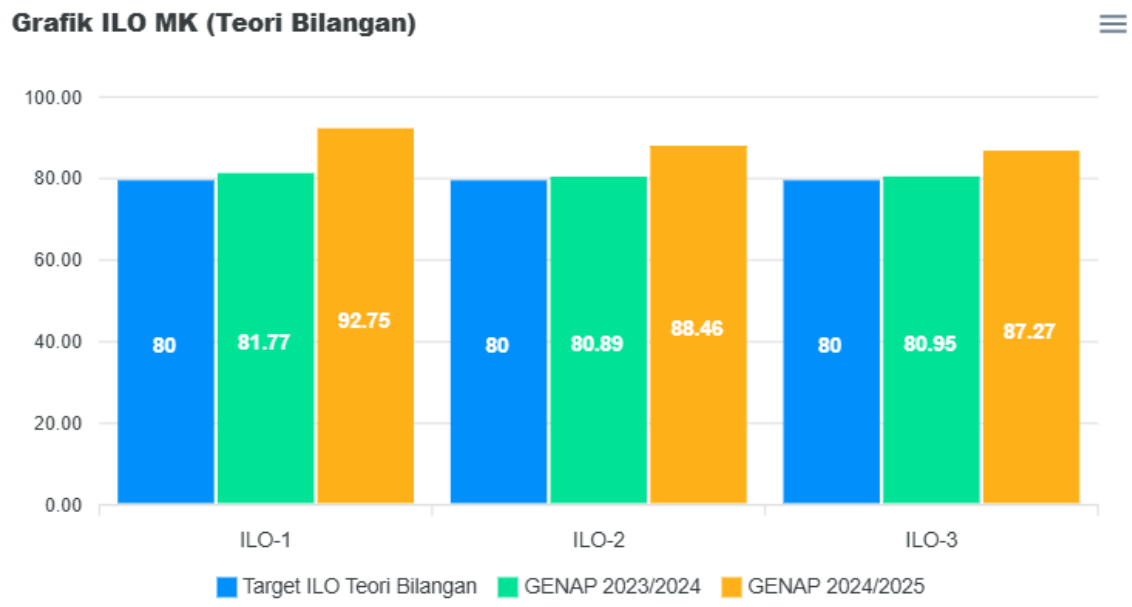
3. Learning evaluation (survey) results

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

Hasil Evaluasi dan pembelajaran Mata Kuliah Teori Bilangan



Hasil Pengukuran CPL Mata Kuliah Teori Bilangan



4. Analysis and Reflection

Analysis

1. Consistent and Continuously Increasing Superior Performance

Data analysis shows that the Number Theory Course consistently provides very superior performance. In the EVEN 2023/2024 period, all CPLs have succeeded in exceeding the target of 80. This positive trend continues and even increases significantly in the EVEN 2024/2025 period, where ILO-1 and ILO-2 show a jump in achievement to level 87.

2. Incomplete Measurement Data

Even though it shows very positive performance, the analysis also found incomplete data in the EVEN 2024/2025 period. Specifically, there is no achievement measurement data at all for ILO-3. This absence of data prevents a comprehensive evaluation of all aspects of learning in the last period.

Reflection

1. Strong Indication of Continuously Developing Good Practices

Performance that is not only high but continues to increase reflects that this course not only has established "best practices", but also carries out an effective continuous improvement cycle. This shows a commitment to continue to innovate and perfect the learning process, making it a very strong pilot model for other courses.

2. The Importance of Maintaining the Integrity of the Evaluation Process

On the other hand, the loss of data for ILO-3 is an important reflection on the integrity of the evaluation process itself. Even if the academic results are outstanding, failure to measure and report one component of learning outcomes is a procedural flaw. This emphasizes that discipline in collecting complete and accurate data is a non-negotiable foundation in a credible quality assurance system.

5. Follow-up Plan

Based on the evaluation of the results of measuring Graduate Learning Outcomes (CPL) for the Number Theory Course, which consistently shows academic performance with a significant positive trend and

exceeding the 'very satisfactory' standard in all evaluation components, the follow-up recommendations are not corrective action. On the contrary, the main focus is directed at efforts to institutionalize and disseminate superior practices that have been implemented, which will be realized through systematic codification of instructional design, pedagogical methodology, as well as assessment instruments that have proven effective to serve as pilot references (benchmarks) for other courses. Simultaneously, validation will be carried out to ensure the completeness of the acquisition data in ILO-3 in order to perfect the quality assurance cycle, with the ultimate aim of ensuring the sustainability of the superior performance title.

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

Following up on the results of previous evaluations in the Number Theory Course, which showed superior performance that continued to increase but was accompanied by incomplete ILO-3 data, an action plan focusing on standardization and process improvement has been implemented. The good practices that drove high performance in ILO-1 and ILO-2 have been documented and maintained, while the measurement process for ILO-3 has been completely improved. The results in the Odd semester 2025/2026 are very satisfying. This success confirms the status of this course as a pilot model, where not only academic excellence is maintained, but also the integrity of the evaluation data is now fully guaranteed.

Makassar, 17 Oktober 2025

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