COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	ODD 2023/2024
Course Code	:	23H01131803
Course Name	:	Special Topics in Combinatorics
Coordinator	:	Prof. Dr. Nurdin, S.Si., M.Si.
Lecturer Team Member	:	Prof. Dr. Nurdin, S.Si., M.Si., Prof. Dr. Hasmawati, 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
Special Topics in Combinatorics	Prof. Dr. Hasmawati, M.Si.	:	8 times	Number of students: 16 persons
	Prof. Dr. Nurdin, S.Si., M.Si.	:	8 times	Presence ≥ 80% : 15 persons (93.75 %) Presence < 80% : 1 person (6.25 %)
	Total Meeting : 16 times.			

Materials/practicum provided

1. Learning Contract, RPS, distance and center of a graph
2. Introduction to Metric Dimension
3. Introduction to partition Dimension
4. Introduction to differential graphs,
5. Introduction to Ramsey theory (Ramsey numbers of graphs, Size Ramsey numbers, graph-critical Ramsey numbers, rainbow Ramsey numbers, Multipartite Ramsey numbers)
6. Introduction to Labeling in graphs

The learning methods implemented

Discovery Learning, Self-Directed Learning, Case Study

The assessment method implemented

1. Short Q&A
2. Case Studies

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)
KK2	CLO-1	Short Q&A	5.00 %	84.38
KK2	CLO-1	Short Q&A	15.00 %	85.38
KK2	CLO-2	Case Studies	35.00 %	85.31
KK2	CLO-2	Case Studies	25.00 %	84.12
KK3	CLO-1	Short Q&A	5.00 %	84.38
KK3	CLO-1	Short Q&A	15.00 %	85.38
KK3	CLO-3	Short Q&A	5.00 %	84.00
KK3	CLO-3	Case Studies	5.00 %	85.50
KK3	CLO-3	Case Studies	10.00 %	84.38
S1	CLO-1	Short Q&A	5.00 %	84.38
S1	CLO-1	Short Q&A	15.00 %	85.38
S2	CLO-2	Case Studies	35.00 %	85.31
S2	CLO-2	Case Studies	25.00 %	84.12

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 [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	100.00%
CLO-3	100.00%
CLO-4	100.00%

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.

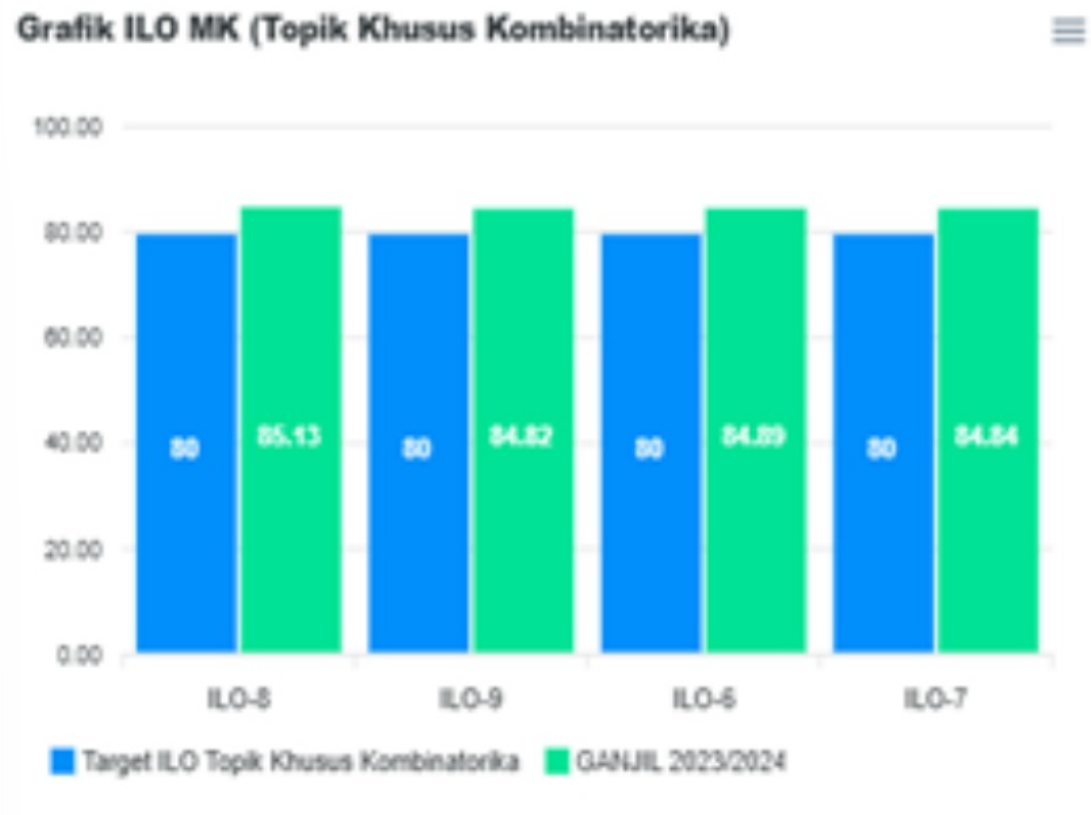
Course Grade

Course Grade	Number and Percentage of Students
A	7 (43.8%)
A-	9 (56.2%)
B+	0 (0.0%)

Course Grade	Number and Percentage of Students
B	0 (0.0%)
B-	0 (0.0%)
C+	0 (0.0%)
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 Perhitungan CPL Mata Kuliah Topik Khusus Kombinatorika

4. Analysis and Reflection

Analysis and Reflection

Analysis

Analysis of the data shows that the performance of the Combinatorics Special Topics Course is at a very high level good and satisfying. Learning outcomes in all measured aspects have consistently succeeded in meeting and even exceeding the targets set. In addition, the performance shown is very even and stable across all learning outcomes, without any significant gaps between one area and another, which indicates the success of the comprehensive learning process in that period.

Reflection

This superior and consistent performance reflects that the course design and implementation has been very effective. There is strong alignment between the teaching process, the material provided, and the evaluation system, so that students are able to achieve learning goals very well. Therefore, follow-up for this course is no longer corrective, but focuses on efforts to maintain existing standards of excellence. The reflection is the importance of documenting existing good practices and continuing to carry out continuous optimization to maintain consistent quality in the future.

5. Follow-up Plan

In response to the excellent and consistent achievements in the Combinatorics Special Topics Course, where all learning targets were successfully exceeded, the follow-up plan is not remedial in nature, but focuses on standardization of good practices and quality sustainability. This step will include official documentation of teaching methods and evaluation systems that have been proven effective to serve as reference models, as well as ongoing monitoring to ensure these standards of excellence are maintained. The main goal is to maintain consistent high performance and make this course a model for others.

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

Following up on the findings of the previous semester's evaluation for the Combinatorics Special Topics Course, which showed very superior performance and consistently exceeding targets, an action plan focusing on standardization of good practices and optimization has been implemented. The future focus is to maintain quality stability and carry out continuous innovation to maintain the standards of excellence that have been achieved.

Makassar, 24 Oktober 2025

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