

## COURSE PORTFOLIO

Study Program	: MATHEMATICS - S1
Semester	: ODD 2024/2025
Course Code	: 23H01131503
Course Name	: Size & Probability Theory
Coordinator	: Dr. Muh. Nur, S.Si., M.Si.
Lecturer Team Member	: Dr. Muh. Nur, S.Si., M.Si., Prof. Dr. Eng. Mawardi, 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	
	Prof. Dr. Eng. Mawardi, S.Si., M.Si.	: 8 times	Number of students: 18 persons
Size and Probability Theory	Dr. Muh. Nur, S.Si., M.Si.	: 8 times	Presence $\geq 80\%$ : 17 persons (94.44 %) Presence $< 80\%$ : 1 person (5.56 %)
Total Meeting : 16 times.			

### Materials/practicum provided

1. Set Theory
2. Set Algebra, Sigma Algebra and measurable spaces
3. Random variables and Measurable Functions
4. Lebesgue Integrals
5. Fourie Transformation

### The learning methods implemented

Meeting 1-2

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

TM:2X3X50

3-5 Meetings

Lecture: Group discussion (Small Group Discussion), Study Case (Case Study), Learning collaborative (Collaborative Learning)

TM:2X3X50

Meetings 6-7

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

TM:2X3X50

Meeting 8

UTS

Meeting 9-10

Lecture: Group discussion (Small Group Discussion), Study Case (Case Study), Learning collaborative (Collaborative Learning)

TM: 2X3X50

11-12 Meeting

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

TM:2X3X50

Meeting 13-15

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

TM:2X3X50

Meeting 16

UAS

### **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>

<b>LOs that are charged to the Course</b>	<b>CLO</b>	<b>Assessment Form</b>	<b>Weight</b>	<b>Average student score (0-100)</b>
KU1	CLO-1	Mid Test	20.00 %	13.58
KU1	CLO-1	Case Studies	10.00 %	7.79
KU1	CLO-3	Final Test	20.00 %	9.79
KU1	CLO-3	Case Studies	10.00 %	4.89

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KU2	CLO-1	Case Studies	10.00 %	7.79
KU2	CLO-1	Mid Test	20.00 %	13.58
KU2	CLO-2	Case Studies	10.00 %	6.05
KU2	CLO-2	Case Studies	10.00 %	7.79
KU2	CLO-2	Mid Test	20.00 %	13.58
KU2	CLO-2	Final Test	20.00 %	9.79
KU2	CLO-3	Final Test	20.00 %	9.79
KU2	CLO-3	Case Studies	10.00 %	4.89
KK3	CLO-2	Mid Test	20.00 %	13.58
KK3	CLO-2	Final Test	20.00 %	9.79
KK3	CLO-2	Case Studies	10.00 %	7.79
KK3	CLO-2	Case Studies	10.00 %	6.05
KK3	CLO-3	Case Studies	10.00 %	4.89
KK3	CLO-3	Final Test	20.00 %	9.79

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	50.00%
CLO-2	11.11%
CLO-3	11.11%

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  $\geq 80$ .

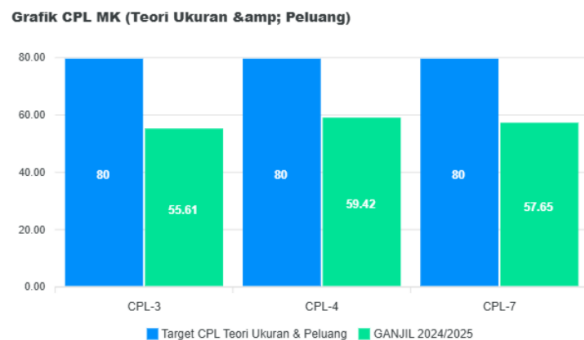
### Course Grade

Course Grade	Number and Percentage of Students
A	2 (11.1%)
A-	0 (0.0%)
B+	0 (0.0%)
B	3 (16.7%)
B-	5 (27.8%)
C+	1 (5.6%)
C	1 (5.6%)

Course Grade	Number and Percentage of Students
D	0 (0.0%)
E	2 (11.1%)

### 3. Learning evaluation (survey) results

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



Hasil Pengukuran CPL MK Teori Ukuran dan Peluang

### 4. Analysis and Reflection

#### Analysis and Reflection

Even though your request mentions the Complex Functions course, the image uploaded is for the Size Theory & Opportunity. The following is an analysis and reflection based on the data in the image.

#### Analysis

##### 1. Critical Performance Far Below Standard

Data analysis in the ODD semester 2024/2025 shows that the CPL achievement for this course is at a very low and critical level. All CPLs measured had an average score in the range of 55 to 59, which is more than 20 points below the target standard of 80. This indicates significant failure in achieving learning objectives.

##### 2. Uniform Pattern of Underperformance

A salient analytical fact is the relatively uniform pattern of underperformance across all CPLs. No CPL is drastically better or worse than another; all of them are in a narrow range and are equally low. This uniformity indicates that the problems faced by students are likely fundamental in nature and have an even impact on all course material.

#### Reflection

##### 1. Indication of Fundamental Problems in Course Design or Prerequisites

Consistently very low performance reflects the high probability that there are very fundamental problems in the design or pedagogical approach of this course. Considering that "Size & Probability Theory" is a very abstract and advanced course, these results may indicate a serious misalignment between the level of difficulty of the material, students' prerequisite knowledge, and the teaching methods currently applied.

##### 2. The Need for Structural and Supportive Interventions, Not Partial Improvements

A reflection of this fundamental problem is that partial or piecemeal improvements are likely to be ineffective. This course requires a comprehensive and supportive structural intervention. This should include a total review of the syllabus, the addition of highly intensive learning support systems (such as mandatory tutorials), and perhaps changes

to evaluation methods to rebuild the foundation of student understanding from the ground up.

## **5. Follow-up Plan**

Considering the CPL results of the Size Theory & The opportunity shows a very low and uniform level of achievement (average 57), well below the target of 80, the action plan should focus on changing the RPS with fundamental pedagogical interventions. The priority step is to carry out a thorough review of teaching methods and simplification of material, as well as implementing an intensive mandatory tutorial program to gradually build understanding of abstract concepts. The evaluation system will also be reviewed to include more formative assessments to provide ongoing feedback, with the ultimate aim of creating a more supportive learning ecosystem for these advanced courses and systematically lifting student achievement to 80 points.

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

Following up on the findings of the 2024/2025 Odd Semester evaluation for the Size Theory & Opportunities, identifying critical performance with an average achievement of level 57, a comprehensive structural intervention has been implemented. The plan centers on a fundamental review of course design, the introduction of mandatory intensive tutorial sessions to strengthen understanding of abstract concepts, and diversification of assessment systems to provide ongoing feedback. In-depth supportive interventions are essential for advanced courses, and it is recommended that this new framework be maintained as a permanent standard.

Makassar, 15 Oktober 2025

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