COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	ODD 2024/2025
Course Code	:	23H01130903
Course Name	:	Introduction to Image Processing
Coordinator	:	Prof. Dr. Eng. Mawardi, S.Si., M.Si.
Lecturer Team Member	:	Prof. Dr. Kasbawati, 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
Introduction to Image Processing	Prof. Dr. Kasbawati, S.Si., M.Si.	: times	Number of students: 22 persons Presence ≥ 80% : Presence < 80% :
	Prof. Dr. Eng. Mawardi, S.Si., M.Si.	: times	
	Total Meeting : times.		

Materials/practicum provided

Basics of Digital Image processing (Basics of Introduction to digital processing),Image Transformation, Spatial filtering, Frequency Domain Processing, Fourier Transformation and wavelets in image processing, Image Restoration, Color Image Processing, Image Segmentation

The learning methods implemented

Small Group Discussion

The assessment method implemented

1. Presentation
2. Case Studies
3. 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	Case Studies	0.52 %	62.73
ILO 1	CLO-1	Independent Assignment	10.47 %	78.27
ILO 1	CLO-2	Case Studies	10.47 %	77.27
ILO 1	CLO-2	Case Studies	0.52 %	62.73
ILO 1	CLO-2	Independent Assignment	10.47 %	78.27
ILO 1	CLO-2	Case Studies	20.94 %	14.65
KK2	CLO-2	Case Studies	10.47 %	77.27
KK2	CLO-2	Case Studies	0.52 %	62.73
KK2	CLO-2	Independent Assignment	10.47 %	78.27
KK2	CLO-2	Case Studies	20.94 %	14.65
KK2	CLO-3	Presentation	10.47 %	76.82
KK2	CLO-3	Case Studies	10.47 %	78.18
KK2	CLO-3	Case Studies	20.94 %	14.65
KK3	CLO-4	Independent Assignment	5.24 %	22.73
KK3	CLO-4	Case Studies	20.94 %	14.65
KK3	CLO-4	Independent Assignment	10.47 %	78.55
KK3	CLO-4	Case Studies	0.52 %	62.73
KK3	CLO-4	Case Studies	10.47 %	78.18
KK3	CLO-4	Presentation	10.47 %	76.82

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	45.45%
CLO-2	0.00%
CLO-3	0.00%
CLO-4	0.00%

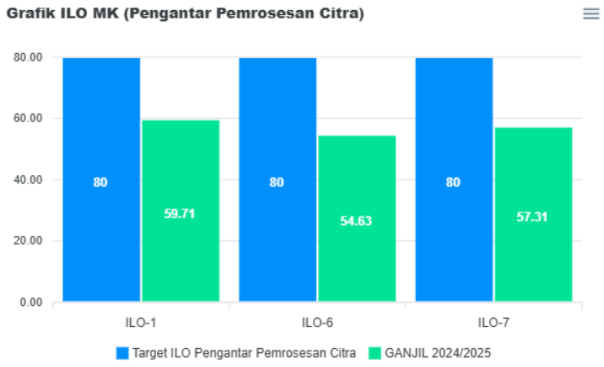
b: result criteria: very satisfactory if ≥80% of students score ≥80; satisfactory if 70%-79.9% of students score ≥80; less satisfactory if < 70% of students score ≥80.

Course Grade

Course Grade	Number and Percentage of Students
A	0 (0.0%)
A-	0 (0.0%)
B+	1 (4.5%)
B	2 (9.1%)
B-	4 (18.2%)
C+	2 (9.1%)
C	1 (4.5%)
D	0 (0.0%)
E	1 (4.5%)

3. Learning evaluation (survey) results

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



Hasil Pengukuran CPL MK Pengantar Pemrosesan Citra

4. Analysis and Reflection

Analysis and Reflection

Analysis

1. Critical Performance Far Below Standard

Data analysis in the 2024/2025 ODD semester 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 54 to 59, which is more than 20 points below the target standard of 80. This indicates significant failure in achieving learning objectives.

2. Identification of the Most Severe Areas of Weakness

While all areas showed very low performance, further analysis identified ILO-6 as the most severe point of weakness with the lowest score of 54.63. This shows that students face the greatest difficulties in topics or practical assignments that are specifically related to the CPL.

Reflection

1. Indication of Fundamental Problems in Practical and Computational Aspects

Consistently very low performance reflects the high possibility of very fundamental problems, especially in the practical and computational aspects which are the core of this course. Considering that "Image Processing" relies heavily on practicum, these results may indicate a misalignment between the complexity of the practicum module, students' basic programming abilities, and project-based evaluation methods.

2. The Need for Structural and Supportive Intervention

The reflection of this fundamental problem is that partial improvements will not be effective. This course requires a comprehensive and supportive structural intervention. This should include a total review of practical modules (especially those related to ILO-6), the addition of intensive assistance sessions or tutorials for programming, and possible adjustments in the weighting between theoretical exams and practical assignments.

5. Follow-up Plan

In response to the very low and critical CPL results in the Introduction to Image Processing Course, a comprehensive structural intervention plan will be implemented. Top priority will be given to a complete overhaul of the practicum modules, especially those relating to ILO-6 as the most severe weak point, as well as the introduction of intensive assistance or tutorial sessions to strengthen students' programming foundations. In addition, the project-based evaluation system will be reviewed in depth to ensure alignment between the complexity of assignments and the material taught. The aim of this comprehensive intervention is to rebuild the practical foundations of the course and systematically raise student achievement so that they can approach the expected targets in the next evaluation period.

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

Following up on the findings of the previous semester's evaluation for the Introduction to Image Processing Course, which identified critical performance with an average CPL achievement of level 57, a comprehensive structural intervention was implemented. Complete overhaul of practicum modules with a focus on ILO-6 as the weakest area, introduction of intensive assistance sessions to strengthen programming foundations, and redesign of project-based evaluation. Supportive intervention in practical aspects is essential for this course, and it is recommended that the new framework be maintained as a permanent standard.

Makassar, 15 Oktober 2025

Prof. Dr. Eng. Mawardi, S.Si., M.Si.
NIP 197012311998021001