COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	ODD 2023/2024
Course Code	:	23H01130303
Course Name	:	Complex Functions
Coordinator	:	Prof. Dr. Eng. Mawardi, S.Si., M.Si.
Lecturer Team Member	:	Dr. Muh. Nur, S.Si., M.Si., Dr. Muhammad Zakir, 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
B Complex Functions	Prof. Dr. Eng. Mawardi, S.Si., M.Si.	:	8 times	Number of students: 36 persons Presence ≥ 80% : 35 persons (97.22 %) Presence < 80% : 1 person (2.78 %)
	Dr. Muhammad Zakir, M.Si.	:	8 times	
	Total Meeting : 16 times.			
Complex Function A	Prof. Dr. Eng. Mawardi, S.Si., M.Si.	:	8 times	Number of students: 24 persons Presence ≥ 80% : 20 persons (83.33 %) Presence < 80% : 4 persons (16.67 %)
	Dr. Muh. Nur, S.Si., M.Si.	:	8 times	
	Total Meeting : 16 times.			

Materials/practicum provided

1. Complex Numbers and Their Operations
2. Complex Functions Elementary, Limit and Continuity
3. Differential Complex Functions and Analytical Functions
4. Cauchy - Riemann Equations and Harmonic Functions
5. Integral Complex Functions
6. Cauchy's Integral Theorem
7. Taylor Series and Laurent Series
8. Theorem residue

The learning methods implemented

Case Study, Small Group Discussion

The assessment method implemented

1. Quiz
2. Case Studies
3. Mid Test
4. Final Test

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	Quiz	5.00 %	71.49
ILO 1	CLO-1	Final Test	20.00 %	79.12
ILO 1	CLO-1	Mid Test	20.00 %	80.95
ILO 1	CLO-1	Case Studies	10.00 %	74.27
ILO 1	CLO-1	Case Studies	5.00 %	67.54
ILO 1	CLO-3	Case Studies	5.00 %	66.25
ILO 1	CLO-3	Quiz	5.00 %	73.41
ILO 1	CLO-3	Mid Test	20.00 %	80.95
ILO 1	CLO-3	Case Studies	10.00 %	73.88
ILO 1	CLO-3	Final Test	20.00 %	79.12
P2	CLO-2	Case Studies	10.00 %	74.27
P2	CLO-2	Case Studies	5.00 %	67.54
P2	CLO-2	Mid Test	20.00 %	80.95
P2	CLO-2	Quiz	5.00 %	71.49
P2	CLO-2	Final Test	20.00 %	79.12
KU1	CLO-3	Case Studies	5.00 %	66.25
KU1	CLO-3	Quiz	5.00 %	73.41
KU1	CLO-3	Mid Test	20.00 %	80.95
KU1	CLO-3	Case Studies	10.00 %	73.88
KU1	CLO-3	Final Test	20.00 %	79.12

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	73.33%
CLO-2	73.33%
CLO-3	71.67%

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.

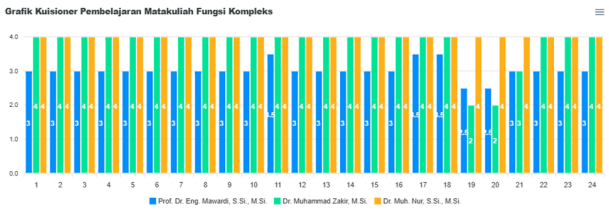
Course Grade

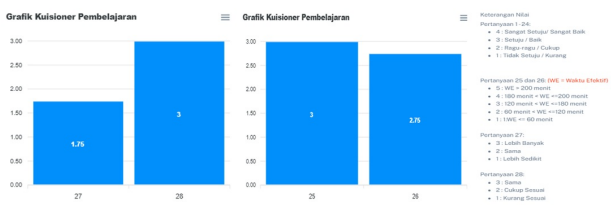
Course Grade	Number and Percentage of Students
A	11 (18.3%)
A-	29 (48.3%)
B+	0 (0.0%)
B	6 (10.0%)
B-	4 (6.7%)
C+	3 (5.0%)
C	5 (8.3%)
D	0 (0.0%)
E	2 (3.3%)

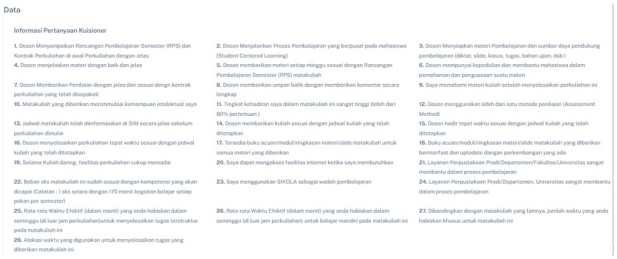
3. Learning evaluation (survey) results

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

Hasil Evaluasi Pembelajaran Matakuliah Fungsi Kompleks





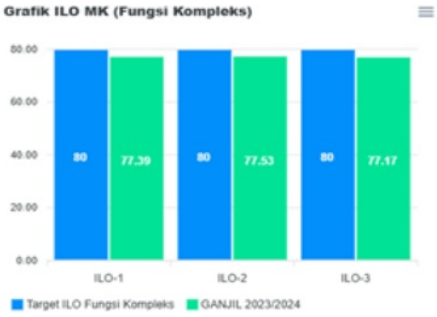


Data

Informasi Pertanyaan Kuisioner

1. Dosen Menyampaikan Rancangan Pembelajaran Semester (RPS) dan Kontrak Perkuliahan di awal Perkuliahan dengan Jelas
2. Dosen Menjalankan Proses Pembelajaran yang berpusat pada mahasiswa (Student Centered Learning)
3. Dosen Menyajikan materi Pembelajaran dan sumber daya pendukung pembelajaran (diktat, slide, kasus, tugas, bahan ujian, dsb)
4. Dosen menjelaskan materi dengan baik dan jelas
5. Dosen memberikan materi setiap minggu sesuai dengan Rancangan Pembelajaran Semester (RPS) matakuliah
6. Dosen memupunyai kepedulian dan membantu mahasiswa dalam pemahaman dan penguasaan suatu materi
7. Dosen Memberikan Penilaian dengan jelas dan sesuai dengan kontrak perkuliahan yang telah disepakati
8. Dosen memberikan umpan balik dengan memberikan komentar secara langkap
9. Saya memahami materi kuliah setelah menyelesaikan perkuliahan ini
10. Matakuliah yang diberikan merstimulasi kemampuan intelektual saya
11. Tingkat kehadiran saya dalam matakuliah ini sangat tinggi (lebih dari 80% pertemuan)
12. Dosen menggunakan lebih dari satu metode penilaian (Assessment Method)
13. Jadwal matakuliah telah diinformasikan di SIM secara jelas sebelum perkuliahan dimulai
14. Dosen memberikan kuliah sesuai dengan jadwal kuliah yang telah ditetapkan
15. Dosen hadir tepat waktu sesuai dengan jadwal kuliah yang telah ditetapkan
16. Dosen menyelesaikan perkuliahan tepat waktu sesuai dengan jadwal kuliah yang telah ditetapkan
17. Tersedia buku acuan/modul/ringkasan materi/slide matakuliah untuk semua materi yang diberikan
18. Buku acuan/modul/ringkasan materi/slide matakuliah yang diberikan bermanfaat dan uptodate dengan perkembangan yang ada
19. Selama Kuliah daring, fasilitas perkuliahan cukup memadai
20. Saya dapat mengakses fasilitas internet ketika saya membutuhkan
21. Layanan Perpustakaan Prodi/Departemen/Fakultas/Universitas sangat membantu dalam proses pembelajaran
22. Beban sks matakuliah ini sudah sesuai dengan kompetensi yang akan dicapai (Catatan : 1 sks setara dengan 170 menit kegiatan belajar setiap pekan per semester)
23. Saya menggunakan SIKOLA sebagai wadah pembelajaran
24. Layanan Perpustakaan Prodi/Departemen, Universitas sangat membantu dalam proses pembelajaran
25. Rata-rata Waktu Efektif (dalam menit) yang anda habiskan dalam seminggu (di luar jam perkuliahan)untuk menyelesaikan tugas terstruktur pada matakuliah ini
26. Rata-rata Waktu Efektif (dalam menit) yang anda habiskan dalam seminggu (di luar jam perkuliahan) untuk belajar mandiri pada matakuliah ini
27. Dibandingkan dengan matakuliah yang lainnya, jumlah waktu yang anda habiskan khusus untuk matakuliah ini
28. Alokasi waktu yang digunakan untuk menyelesaikan tugas yang diberikan matakuliah ini

Hasil Pengukuran CPL Mata Kuliah Fungsi Kompleks



4. Analysis and Reflection

Analysis and Reflection

Analysis

Analysis of the data shows that the performance of the Complex Functions Course is at a good level, but has not succeeded in achieving the expected targets. Learning outcomes in all aspects measured are consistently slightly below the established standards. The pattern of performance demonstrated is very even and stable across learning outcomes, with no areas being significantly weaker or stronger than others, indicating that the challenges faced are comprehensive and not focused on a particular topic.

Reflection

This good and stable performance reflects that the learning foundation in this course is quite strong. The challenge is not to correct significant weaknesses, but rather to push achievements from 'good' to 'very good' levels to meet target standards. Because the problem is widespread, the necessary follow-up will likely not be specific to one topic, but rather will be general improvement strategies that can lift overall performance, such as strengthening practice sessions or adding more in-depth case studies to all material. The focus is on optimization to achieve the expected level of excellence.

5. Follow-up Plan

In response to the achievements that have been good but consistently slightly below the target in the Complex Functions Course, the follow-up plan will not be a fundamental improvement, but will focus on a comprehensive optimization strategy. This step will include strengthening practice questions and case study sessions to deepen practical understanding, as well as carrying out light calibration of the evaluation system to further encourage students to reach a level of excellence. The aim is to provide the final push needed so that this already solid performance can be lifted uniformly to exceed predetermined target standards 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 Complex Functions Course, which identified performance that was good but consistently slightly below target, an action plan focusing on optimization through strengthening practice sessions and case studies has been implemented. This strengthening approach is maintained to

maintain the stability of superior performance in the future.

Makassar, 21 Oktober 2025

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