COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	EVEN 2023/2024
Course Code	:	23H01121003
Course Name	:	Partial Differential Equations
Coordinator	:	Naimah Aris, S.Si.,M.Math.
Lecturer Team Member	:	Naimah Aris, S.Si.,M.Math., Prof. Agustinus Ribal, S.Si.,M.Sc., Ph. D, Prof. Dr. Jeffry Kusuma

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
Partial Differential Equations A	Prof. Dr. Jeffry Kusuma	:	8 times	Number of students: 40 persons
	Naimah Aris, S.Si.,M.Math.	:	8 times	Presence ≥ 80% : 37 persons (92.50 %)
	Total Meeting : 16 times.			Presence < 80% : 3 persons (7.50 %)
Partial Differential Equation B	Prof. Dr. Jeffry Kusuma	:	8 times	Number of students: 35 persons
	Prof. Agustinus Ribal, S.Si.,M.Sc., Ph. D	:	8 times	Presence ≥ 80% : 32 persons (91.43 %)
	Total Meeting : 16 times.			Presence < 80% : 3 persons (8.57 %)

Materials/practicum provided

1. Introduction to PDP, Notation and general solution PDP (Introduction to partial differential equation/PDE, notation and the general solution of PDE)
2. Classification of PDP (Classification of PDE)
3. Fourier series and periodic functions (Fourier series and periodic function)
4. PDP Trichotomy (Trichotomy of PDE)
5. The issue of initial value & boundary values (Initial and boundary value problems)
6. Method of separating variables (Methods of separation variables)
7. Reduction to Canonical / Standard form (Reduction into canonical form)
8. Method of separation variables for 1D heat equations (Method of separation variables for one

dimensional heat equation)

9. Other methods for one dimensional heat equation
10. 1D Wave Equation (One dimensional wave equations)
11. D'Alembert solution for one dimensional wave equations
12. Two dimensional Laplace equation (Two dimensional Laplace equations)
13. Laplace equation in polar coordinates
14. Neumann Problem for Laplace equation
15. Poisson solution for the annulus problem Laplace equation in the annulus)
16. Two dimensions heat equation (Two dimensions heat equation)
17. Two dimensions wave equation (Two dimensions wave equation)
18. Introduction to numerical solution for PDE (PDE)

The learning methods implemented

Lecture: Cooperative learning (Cooperative learning)

The assessment method implemented

1. Case Studies
2. Final Test
3. Independent Assignment

Supplementary information (if available)

In administering courses this semester, 3 (three) methods are used, namely: case study, independent assignment and final test.

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	5.00 %	60.97
ILO 1	CLO-1	Final Test	20.00 %	66.61
ILO 1	CLO-1	Case Studies	10.00 %	63.11
ILO 1	CLO-1	Independent Assignment	10.00 %	62.07
ILO 1	CLO-1	Case Studies	20.00 %	65.69
ILO 1	CLO-2	Independent Assignment	5.00 %	60.42
ILO 1	CLO-2	Final Test	20.00 %	66.61

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
ILO 1	CLO-2	Independent Assignment	10.00 %	62.07
ILO 1	CLO-2	Case Studies	10.00 %	63.11
ILO 1	CLO-2	Case Studies	20.00 %	65.69
P2	CLO-1	Independent Assignment	5.00 %	60.97
P2	CLO-1	Final Test	20.00 %	66.61
P2	CLO-1	Independent Assignment	10.00 %	62.07
P2	CLO-1	Case Studies	20.00 %	65.69
P2	CLO-1	Case Studies	10.00 %	63.11
P2	CLO-2	Independent Assignment	5.00 %	60.42
P2	CLO-2	Final Test	20.00 %	66.61
P2	CLO-2	Independent Assignment	10.00 %	62.07
P2	CLO-2	Case Studies	10.00 %	63.11
P2	CLO-2	Case Studies	20.00 %	65.69
P2	CLO-4	Case Studies	10.00 %	62.37
P2	CLO-4	Final Test	20.00 %	66.61
P2	CLO-4	Independent Assignment	5.00 %	61.51
P2	CLO-4	Case Studies	20.00 %	65.69
P2	CLO-5	Independent Assignment	5.00 %	61.51
P2	CLO-5	Independent Assignment	10.00 %	62.58
P2	CLO-5	Final Test	20.00 %	66.61
KU2	CLO-3	Final Test	20.00 %	66.61
KU2	CLO-3	Case Studies	10.00 %	65.31
KU2	CLO-3	Independent Assignment	5.00 %	60.42
KU2	CLO-4	Case Studies	20.00 %	65.69
KU2	CLO-4	Independent Assignment	5.00 %	61.51
KU2	CLO-4	Case Studies	10.00 %	62.37

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KU2	CLO-4	Final Test	20.00 %	66.61
KU2	CLO-5	Independent Assignment	5.00 %	61.51
KU2	CLO-5	Final Test	20.00 %	66.61
KU2	CLO-5	Independent Assignment	10.00 %	62.58
KK1	CLO-3	Independent Assignment	5.00 %	60.42
KK1	CLO-3	Final Test	20.00 %	66.61
KK1	CLO-3	Case Studies	10.00 %	65.31
KK1	CLO-4	Final Test	20.00 %	66.61
KK1	CLO-4	Independent Assignment	5.00 %	61.51
KK1	CLO-4	Case Studies	10.00 %	62.37
KK1	CLO-4	Case Studies	20.00 %	65.69
KK1	CLO-6	Independent Assignment	10.00 %	62.07
KK1	CLO-6	Final Test	20.00 %	66.61
KU1	CLO-3	Independent Assignment	5.00 %	60.42
KU1	CLO-3	Case Studies	10.00 %	65.31
KU1	CLO-3	Final Test	20.00 %	66.61
KU1	CLO-4	Independent Assignment	5.00 %	61.51
KU1	CLO-4	Case Studies	10.00 %	62.37
KU1	CLO-4	Final Test	20.00 %	66.61
KU1	CLO-4	Case Studies	20.00 %	65.69
KU1	CLO-5	Independent Assignment	5.00 %	61.51
KU1	CLO-5	Final Test	20.00 %	66.61
KU1	CLO-5	Independent Assignment	10.00 %	62.58
KK2	CLO-3	Final Test	20.00 %	66.61
KK2	CLO-3	Independent Assignment	5.00 %	60.42
KK2	CLO-3	Case Studies	10.00 %	65.31

LOs that are charged to the Course	CLO	Assessment Form	Weight	Average student score (0-100)
KK2	CLO-6	Final Test	20.00 %	66.61
KK2	CLO-6	Independent Assignment	10.00 %	62.07

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	25.33%
CLO-2	22.67%
CLO-3	29.33%
CLO-4	25.33%
CLO-5	29.33%
CLO-6	28.00%

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.

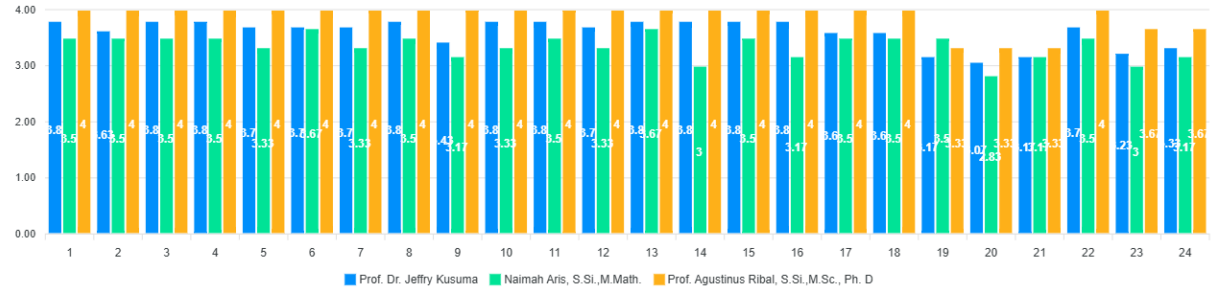
Course Grade

Course Grade	Number and Percentage of Students
A	13 (17.3%)
A-	6 (8.0%)
B+	5 (6.7%)
B	13 (17.3%)
B-	9 (12.0%)
C+	4 (5.3%)
C	12 (16.0%)
D	4 (5.3%)
E	9 (12.0%)

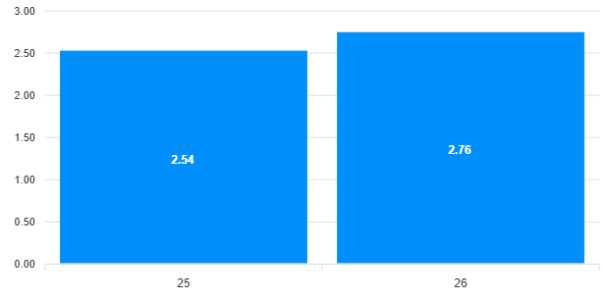
3. Learning evaluation (survey) results

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

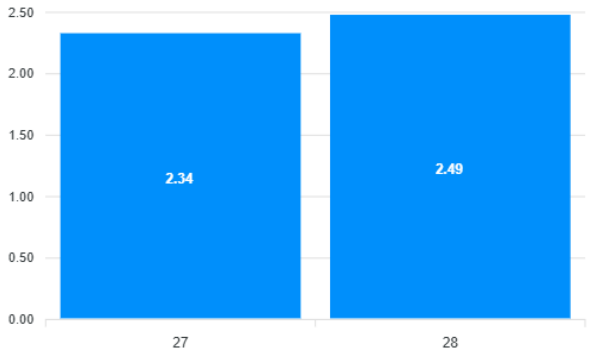
Grafik Kuisioner Pembelajaran Matakuliah Persamaan Diferensial Parsial



Grafik Kuisioner Pembelajaran



Grafik Kuisioner Pembelajaran



Keterangan Nilai

Pertanyaan 1-24:

- 4 : Sangat Setuju/ Sangat Baik
- 3 : Setuju / Baik
- 2 : Ragu-ragu / Cukup
- 1 : Tidak Setuju / Kurang

Pertanyaan 25 dan 26: (WE = Waktu Efektif)

- 5 : WE > 200 menit
- 4 : 180 menit < WE <=200 menit
- 3 : 120 menit < WE <=180 menit
- 2 : 60 menit < WE <=120 menit
- 1 : 1:WE <= 60 menit

Pertanyaan 27:

- 3 : Lebih Banyak
- 2 : Sama
- 1 : Lebih Sedikit

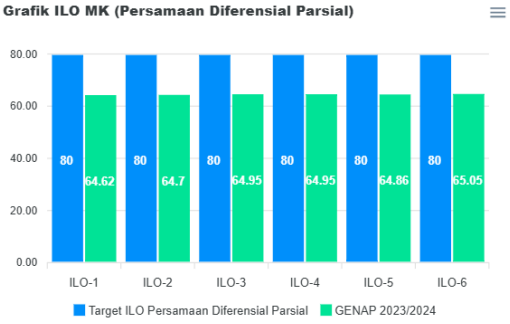
Pertanyaan 28:

- 3 : Sama
- 2 : Cukup Sesuai
- 1 : Kurang Sesuai

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 Menyiapakan materi Pemebelajaran dan sumber daya pensukung pwmbelajaran (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 mempunyai kepedulian dan membantu mahasiswa dalam pemahaman dan penguasaan suatu materi
7. Dosen Memberikan Penilaian dengan jelas dan sesuai dengn kontrak perkuliahan yang telah disepakati
8. Dosen memberikan umpan balik dengan memberikan komentar secara lengkap
9. Saya memahami materi kuliah setelah menyelesaikan perkuliahan ini
10. Matakuliah yang diberikan menstimulasi 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 dangan perkembangan yang ada
19. Selama Kualiah daring, fasilitas perkuliahan cukup memadai
20. Saya menggunakan SIKOLA sebagai wadah pembelajaran
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 dngan 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 terstrukturpada matakuliah ini
26. Rata-rata Waktu Efektif (dalam menit) yang anda habiskan dalam seminggu (di luar jam perkuliahan) unuk 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 Persamaan Diferensial Parsial



4. Analysis and Reflection

Analysis

Learning partial differential equations is quite popular with students. This can be seen from the distribution of grades achieved by students. There are still 15 (fifteen) students who got grades C, D and E, which indicates a weakness in mastering basic mathematics.

Reflection

The need for learning in the previous semester, students were better prepared to strengthen basic mathematics.

5. Follow-up Plan

Next semester's learning will include strengthening the basics of mathematics through case studies.

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

Not yet

Makassar, 17 Oktober 2025

Naimah Aris, S.Si.,M.Math.
NIP 197110031997022001