COURSE PORTFOLIO

Study Program	:	MATHEMATICS - S1
Semester	:	ODD 2024/2025
Course Code	:	23H01131903
Course Name	:	Special Topics in Applied Mathematics
Coordinator	:	Prof. Dr. Syamsuddin Toaha, M.Sc.
Lecturer Team Member	:	Prof. Dr. Syamsuddin Toaha, M.Sc., Prof. Dr. Kasbawati, 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
Special Topics in Applied Mathematics	Prof. Dr. Syamsuddin Toaha, M.Sc. : 8 times Prof. Dr. Kasbawati, S.Si., M.Si. : 8 times Total Meeting : 16 times.	Number of students: 38 persons Presence ≥ 80% : 37 persons (97.37 %) Presence < 80% : 1 person (2.63 %)

Materials/practicum provided

Gagal diterjemahkan

The learning methods implemented

The learning method used is in the form of Project Based which is carried out through the following learning scenarios: 1. Students are divided into 9 groups. Each group consists of 4 group members. 2. Each group is given one of the latest journal topics that has been prepared by the lecturer. Groups can propose other topics besides those provided by the lecturer. 3. Each group will discuss using the small group discussion method. Group discussions will focus on: a. The background of the problem being modeled includes important issues being studied and which are new in the journal being discussed. b. The assumptions and basis for developing mathematical models include identification of variables and model parameters, relationships between variables, dimensional analysis, etc. c. Analytical results and numerical simulations obtained and their interpretation. d. Opportunities for developing models of the problems studied and discussed. 4. Organization of meeting times follows the following table: Week 1: Lecture Topic 1; Group Preparation Week 2 Group Presentations Topic 2-10 Background of the problems and Scope of modeling (mathematical model identification) Weeks 3-4 Group Presentations Topic 2-10 Mathematical models Week 5 Group Presentations Topic 2-10 Mathematical analysis Weeks 6-7 Group Presentations Topic 2-10 Mathematical simulation Weeks 7-8 Group Presentations Topic 2-10 Prospective model improvement

The assessment method implemented

1. Project Report
2. Presentation
3. Project Based

Supplementary information (if available)

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)
P2	CLO-1	Project Based	5.00 %	70.96
P2	CLO-1	Presentation	5.00 %	72.64
P2	CLO-1	Project Report	5.00 %	72.10
P2	CLO-1	Presentation	10.00 %	82.89
KK1	CLO-2	Project Based	5.00 %	69.82
KK1	CLO-2	Project Report	5.00 %	72.10
KK1	CLO-2	Project Based	8.00 %	76.61
KK1	CLO-2	Project Report	7.00 %	77.50
KK1	CLO-2	Project Report	10.00 %	83.34
KK3	CLO-3	Project Based	5.00 %	69.82
KK3	CLO-3	Project Based	10.00 %	81.82
KK3	CLO-3	Project Report	10.00 %	81.66
KK3	CLO-3	Project Report	15.00 %	85.82

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	60.53%

CLO	% of students who achieved a CLO score of at least 80
CLO-2	65.79%
CLO-3	78.95%

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	21 (55.3%)
A-	9 (23.7%)
B+	3 (7.9%)
B	2 (5.3%)
B-	0 (0.0%)
C+	0 (0.0%)
C	0 (0.0%)
D	1 (2.6%)
E	2 (5.3%)

3. Learning evaluation (survey) results

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

Grafik Kuisioner Pembelajaran Matakuliah Topik Khusus Matematika Terapan

■ Prof. Dr. Syamsuddin Toaha, M.Sc. ■ Prof. Dr. Kasbawati, S.Si., M.Si.
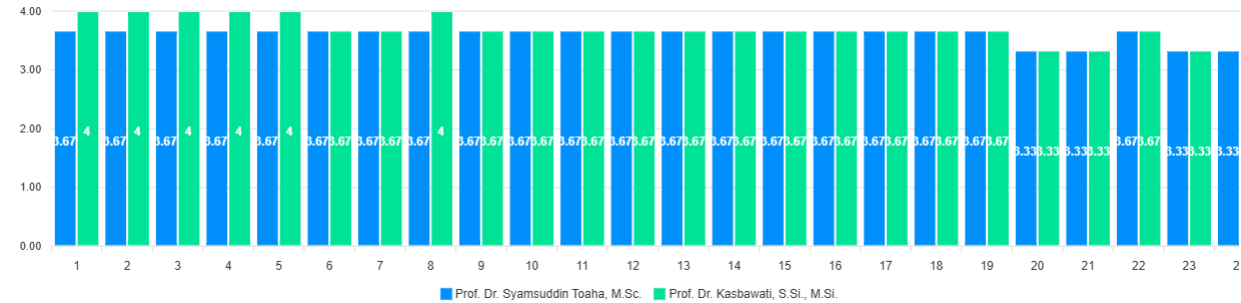
Grafik Kuisioner Pembelajaran
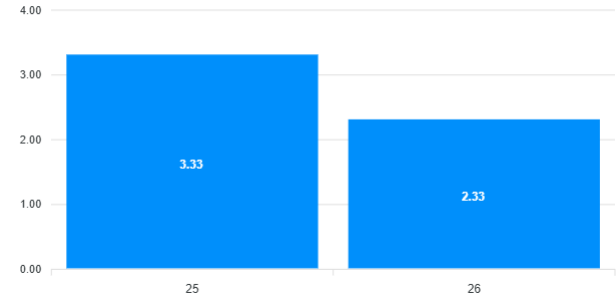
Grafik Kuisioner Pembelajaran
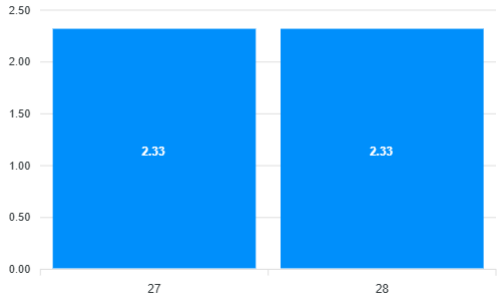
Keterangan Nilai
Pertanyaan 1-24:
- 4 : Sangat Setuju/ Sangat Baik
- 3 : Setuju / Baik
- 2 : Ragu-ragu / Cukup
- 1 : Tidak Setuju / Kurang

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

Grafik ILO MK (Topik Khusus Matematika Terapan)
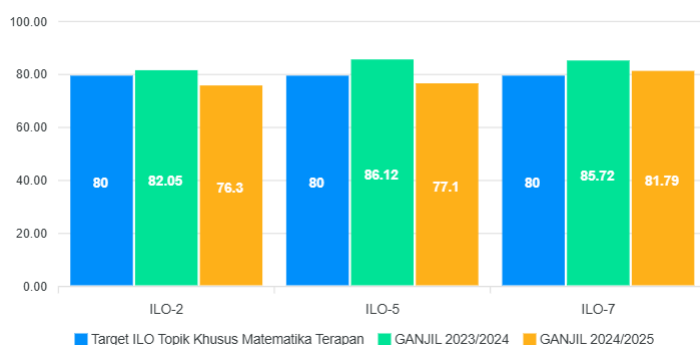
Hasil Pengukuran CPL MK Topik Khusus Matematika Terapan

4. Analysis and Reflection

Based on the evaluation results of the implementation of the learning process, data from the learning survey shows that the level of student satisfaction with the implementation of the learning process is very satisfactory. Starting from the delivery of learning plans, delivery of material, satisfaction with the lecturer's competence in teaching, satisfaction with the lecturer in providing good feedback, and student satisfaction in the organization of lecture time by the teaching lecturer. Some aspects that students feel need to be improved are learning facilities, such as library services and the organization of the completion time given to students. The results of the CPL measurements show that of the three CPL Prodi deposits, only one exceeded the achievement limit, namely KK3 with an achievement value of 81.79%. The other two CPLs almost reached the minimum threshold, with achievement scores of 76.3% for P2 and 77.1% for KK1. This shows that improvements still need to be made to achieve targets for P2 and KK1.

5. Follow-up Plan

Based on the evaluation results and CPL measurement results of course load, several improvements are planned to be implemented in the next semester, including:

1. Evaluate the workload weight of each assignment given to students because some assignments are considered overload

2. Arrangement of heterogeneous discussion group members between students who have excellent, moderate and poor academic performance

3. Improvement of learning methods and implementation design.

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

The results of the improvements from the previous reflection show good effectiveness as shown in the survey results obtained. However, from the results of measuring CPL achievement, improvements still need to be made in the next Seester

Makassar, 15 Oktober 2025

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