

MODULE PORTFOLIO
ODD SEMESTER ACADEMIC YEAR 2019/2020

MODULE NAME	: System of Geometry	LECTURER:									
MODULE CODE	: 8420203201	PROF. DR. MEGA T BUDIARTO, M.PD									
CLASS	: 2017										
SEMESTER	: 5										
DATE	: 27 January 2020										
COURSE LEARNING OUTCOMES	<p>Programme Learning Outcomes (PLO) KNO-1 Able to demonstrate mathematical knowledge and insight. SKI-2 Able to implement basic principles of mathematics to solve simple mathematics problems</p> <p>CLO-1 Able to develop mathematical thinking which begins from an understanding of euclid geometry to non euclid geometry CLO-2 Able to implement understanding of euclid geometry and non euclid geometry in solving geometry problems</p> <p style="text-align: center;">Correlation Between PLO and CLO System of Geometry</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Probability and Statistics</th> <th>KNO-1</th> <th>SKI-2</th> </tr> </thead> <tbody> <tr> <td>CLO-1</td> <td style="text-align: center;">√</td> <td></td> </tr> <tr> <td>CLO-2</td> <td></td> <td style="text-align: center;">√</td> </tr> </tbody> </table>		Probability and Statistics	KNO-1	SKI-2	CLO-1	√		CLO-2		√
Probability and Statistics	KNO-1	SKI-2									
CLO-1	√										
CLO-2		√									
LEARNING STRATEGIES	: Lectures are carried out by activating students with the following strategies: Lectures, Discussions, Presentations, and Group Assignments										
ASSESSMENT	<p>The assessment carried out during the lecture includes the following three components.</p> <ol style="list-style-type: none"> 1. Assignment (Quiz and Presentation) 2. Midterm Exam (UTS) 3. Final Exam (UAS) <p>1. Assignment</p> <ul style="list-style-type: none"> ✓ Assignments were given twice in one semester, before UTS (in the form of a quiz) and after UTS (in the form of a presentation) ✓ The quiz was an independent/individual task in the form of a description of the materials that have been discussed before the UTS 										

- ✓ The quiz was held in the classroom for 100 minutes
- ✓ The presentation was a group assignment in the form of a group presentation about the materials to be discussed after the UTS.
- ✓ Each group presented one material while the other groups provided an assessment of the progressing group according to the Presentation Assessment Rubric
- ✓ The assignment was carried out to see the achievements of the PLO and CLO which are in accordance with the characteristics of the probability and statistics module

2. Midterm Exam (UTS)

- ✓ UTS was held at the 8th meeting
- ✓ UTS was carried out in the classroom with an implementation time of 100 minutes according to the module schedule
- ✓ The UTS was carried out to see the achievements of the PLO and CLO which are in accordance with the characteristics of the probability and statistics module

3. Final Exam (UAS)

- ✓ UAS was held at the 16th meeting
- ✓ UAS was carried out in the classroom with an implementation time of 100 minutes which follows the UAS implementation schedule of the department
- ✓ The UAS was carried out to see the achievements of the PLO and CLO which are in accordance with the characteristics of the opportunity and statistics courses

Assessment Plan

Probability and Statistics	KNO-1	SKI-2
CLO-1	Tugas, UTS, UAS	
CLO-2		Tugas, UTS, UAS

Weight of Test Ability

Probability and Statistics	KNO-1	SKI-2
Tugas	50%	50%
UTS	50%	50%
UAS	50%	50%

The Calculation of PLO's Weight

	P	T	UTS	UAS	
Bobot	0	0.3	0.2	0.3	
KNO-1	0	0.15	0.1	0.15	0.4
SKI-2	0	0.15	0.1	0.15	0.4
	0	0.3	0.2	0.3	0.8

**LEARNING
OUTCOMES**

The Calculation of PLO for each students

NO	NIM	STUDENT NAME	SCORE OF PLO	
			KNO-1	SKI-2
1	17030174002	EKA ZULIA NINGTYAS	83.00	83.00
2	17030174005	TIGAS LAILA NURPRATIWI	81.13	81.13
3	17030174010	DYAH AYU KARINDRA OKTAVIANE	68.75	68.75
4	17030174013	ZUHADUR RA'IS ARIYONO PUTRA	85.00	85.00
5	17030174015	ILMUS SAMAWATI	87.63	87.63
6	17030174016	DYAH AYU PUSPITA ARDANI	85.00	85.00
7	17030174017	RATRI MURDY ANDARI	82.75	82.75
8	17030174022	YAFFI TIARA TRYMELYNDA	79.38	79.38
9	17030174024	SITI AISYAH NURLATIFAH	83.50	83.50
10	17030174026	ERLYANNA NUR RISQI	81.88	81.88
11	17030174030	ERISCA LUSY RUSDIANTI	81.25	81.25
12	17030174031	INTAN FATHIMAH AHMADAH	84.25	84.25

	13	17030174034	ACHMAD LUTHFI ALVIANTO	79.38	79.38	
	14	17030174039	FIRNANDA MUHARRIMA	85.75	85.75	
	15	17030174044	VICKY FIRDAUSI NUZULA	74.38	74.38	
	16	17030174046	MAR'ATUS SOLEHAH	83.75	83.75	
	17	17030174057	NURUL LAILI	88.25	88.25	
	18	17030174058	LAILI HIKMIYAH	70.50	70.50	
	19	17030174059	MAJIDATUL HIMMAH	74.63	74.63	
	20	17030174061	JIHAN NURILLA	91.13	91.13	
	21	17030174081	ANNISA NURUL HIDAYATI	83.75	83.75	
	22	17030174083	PARAMITA INTAN CAHYANI	78.88	78.88	
	23	15030174040	NUR WINDYAH HASAN	83.75	83.75	
	24	17030174001	NUR HIDAYATUL HIKMAH	69.13	69.13	
	25	17030174004	RIZCHA HANDINI SETIANI	79.63	79.63	
	26	17030174006	FIRDAUSIN NUZULA	82.63	82.63	
	27	17030174007	NUR MUFIDAH AN NURMA	81.25	81.25	
	28	17030174014	MAYA FIRDAUSTITA HAWAI	77.50	77.50	
	29	17030174021	MUHAMMAD AMINUDDIN ZULFI	76.88	76.88	
	30	17030174025	AGUNG PRASETYO	88.75	88.75	
	31	17030174028	SITI MUNAWAROH	70.63	70.63	
	32	17030174029	DWI PERMATASARI	81.88	81.88	
	33	17030174032	MUHAMMAD NANANG FERDIANSYAH	80.00	80.00	
	34	17030174033	HAMAM FAJAR NUR HARITS	70.63	70.63	
	35	17030174035	CAHANILA GEMA LINTANG SUKMA	78.13	78.13	
	36	17030174036	INTANALISA HARIYONO	80.00	80.00	
	37	17030174040	YAZID Wafa ASSALAFY	76.25	76.25	
	38	17030174041	VINA MILLAH MAZIYYAH	70.63	70.63	
	39	17030174042	SEFTYANA AYU SUSANTI	76.25	76.25	
	40	17030174043	NANDA PUTRI WAHYUNI	80.00	80.00	
	41	17030174045	ENITA	81.25	81.25	

42	17030174048	RENATA NURLAILY ROWDLOTUL JANNAH	74.38	74.38
43	17030174049	FAHILAN NUR BACHTIAR	86.25	86.25
44	17030174050	RISKAUNI FITRI MAGHFIROH	78.13	78.13
45	17030174051	IKMA NURUL KHOYIMAH	76.25	76.25
46	17030174052	ALDIO RAHMATA	80.00	80.00
47	17030174053	AULIA ROHMATUL HIDAYAH	76.25	76.25
48	17030174054	NABILAH SYADZA MAHDIYYAH	81.88	81.88
49	17030174056	MALIK ABDUL AZIS	72.13	72.13
50	17030174062	PRIZA TRI SETYA WICAKSANA	72.50	72.50
51	17030174070	RIMA MAISYAH RIDWANAH	83.13	83.13
52	17030174071	PUSPITA ANGGRAINI S	78.13	78.13
53	17030174076	RENOVA MI'ROJUL LAIL	74.38	74.38
54	17030174077	ANGGIETYAS DAMANINGRUM	81.88	81.88
55	17030174078	ANGGA SETIAWAN ADI WIBOWO	81.88	81.88
56	17030174079	HUSNA FIDDA RO'AINI	76.25	76.25
57	17030174080	SALSABILA SETIA INSANI	78.13	78.13
58	17030174082	SITI ULINIKMAH	70.63	70.63
59	17030174084	MUKHAMAD FARID	72.50	72.50
60	17030174085	SISVA LESTARI MANGIRI	70.63	70.63
61	17030174086	LUTHFIA LAILI AYU NOVITASARI	76.25	76.25
62	17030174087	LINDA KARTIKASARI	80.00	80.00
63	17030174088	ITA PRIYANTI	68.75	68.75
64	17030174090	LIESKA MAULITA SHAMIMI	76.25	76.25
65	17030174092	LAILA TULJANNAH	81.13	81.13

NO	NIM	STUDENT NAME	PREDICATE OF PLO	
			KNO-1	SKI-2
1	17030174002	EKA ZULIA NINGTYAS	E	E
2	17030174005	TIGAS LAILA NURPRATIWI	E	E

	3	17030174010	DYAH AYU KARINDRA OKTAVIANE	S	S
	4	17030174013	ZUHADUR RA'IS ARIYONO PUTRA	E	E
	5	17030174015	ILMUS SAMAWATI	E	E
	6	17030174016	DYAH AYU PUSPITA ARDANI	E	E
	7	17030174017	RATRI MURDY ANDARI	E	E
	8	17030174022	YAFFI TIARA TRYMELYNDA	G	G
	9	17030174024	SITI AISYAH NURLATIFAH	E	E
	10	17030174026	ERLYANNA NUR RISQI	E	E
	11	17030174030	ERISCA LUSY RUSDIANTI	E	E
	12	17030174031	INTAN FATHIMAH AHMADAH	E	E
	13	17030174034	ACHMAD LUTHFI ALVIANTO	G	G
	14	17030174039	FIRNANDA MUHARRIMA	E	E
	15	17030174044	VICKY FIRDAUSI NUZULA	G	G
	16	17030174046	MAR'ATUS SOLEHAH	E	E
	17	17030174057	NURUL LAILI	E	E
	18	17030174058	LAILI HIKMIYAH	G	G
	19	17030174059	MAJIDATUL HIMMAH	G	G
	20	17030174061	JIHAN NURILLA	E	E
	21	17030174081	ANNISA NURUL HIDAYATI	E	E
	22	17030174083	PARAMITA INTAN CAHYANI	G	G
	23	15030174040	NUR WINDYAH HASAN	E	E
	24	17030174001	NUR HIDAYATUL HIKMAH	S	S
	25	17030174004	RIZCHA HANDINI SETIANI	G	G
	26	17030174006	FIRDAUSIN NUZULA	E	E
	27	17030174007	NUR MUFIDAH AN NURMA	E	E
	28	17030174014	MAYA FIRDAUSTITA HAWAI	G	G
	29	17030174021	MUHAMMAD AMINUDDIN ZULFI	G	G
	30	17030174025	AGUNG PRASETYO	E	E
	31	17030174028	SITI MUNAWAROH	G	G

32	17030174029	DWI PERMATASARI	E	E
33	17030174032	MUHAMMAD NANANG FERDIANSYAH	E	E
34	17030174033	HAMAM FAJAR NUR HARITS	G	G
35	17030174035	CAHANILA GEMA LINTANG SUKMA	G	G
36	17030174036	INTANALISA HARIYONO	E	E
37	17030174040	YAZID Wafa ASSALAFY	G	G
38	17030174041	VINA MILLAH MAZIYYAH	G	G
39	17030174042	SEFTYANA AYU SUSANTI	G	G
40	17030174043	NANDA PUTRI WAHYUNI	E	E
41	17030174045	ENITA	E	E
42	17030174048	RENATA NURLAILY ROWDLOTUL JANNAH	G	G
43	17030174049	FAHILAN NUR BACHTIAR	E	E
44	17030174050	RISKAUNI FITRI MAGHFIROH	G	G
45	17030174051	IKMA NURUL KHOYIMAH	G	G
46	17030174052	ALDIO RAHMATA	E	E
47	17030174053	AULIA ROHMATUL HIDAYAH	G	G
48	17030174054	NABILAH SYADZA MAHDIYYAH	E	E
49	17030174056	MALIK ABDUL AZIS	G	G
50	17030174062	PRIZA TRI SETYA WICAKSANA	G	G
51	17030174070	RIMA MAISYAH RIDWANAH	E	E
52	17030174071	PUSPITA ANGGRAINIS	G	G
53	17030174076	RENOVA MI'ROJUL LAIL	G	G
54	17030174077	ANGGIETYAS DAMANINGRUM	E	E
55	17030174078	ANGGA SETIAWAN ADI WIBOWO	E	E
56	17030174079	HUSNA FIDDA RO'AINI	G	G
57	17030174080	SALSABILA SETIA INSANI	G	G
58	17030174082	SITI ULINIKMAH	G	G
59	17030174084	MUKHAMAD FARID	G	G
60	17030174085	SISVA LESTARI MANGIRI	G	G

61	17030174086	LUTHFIA LAILI AYU NOVITASARI	G	G
62	17030174087	LINDA KARTIKASARI	E	E
63	17030174088	ITA PRIYANTI	S	S
64	17030174090	LIESKA MAULITA SHAMIMI	G	G
65	17030174092	LAILA TULJANNAH	E	E

E = Excellent, jika $x \geq 80$

G = Good, jika $70 \leq x < 80$

S = Satisfy, jika $55 \leq x < 70$

F = Fail, jika $x < 55$

With x is student's score for each PLO

**LEARNING
OUTCOMES
ANALYSIS**

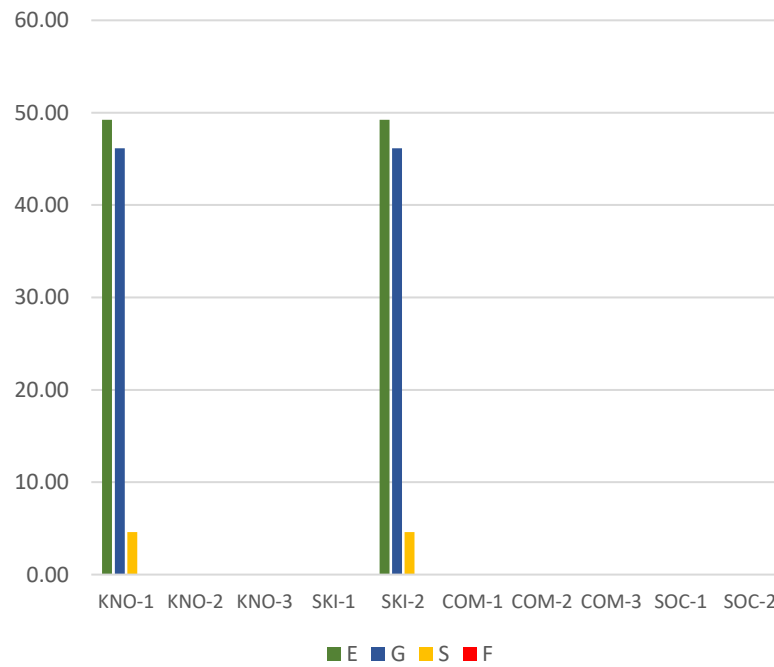
PLO Assessment Rubric

PLO	Description	Excellent	Good	Satisfy	Fail
KNO-1	Able to demonstrate mathematical knowledge and insight.	Student be able to develop mathematical thinking which begins from an understanding of euclid geometry to non euclid geometry with a minimum score of 80	Student be able to develop mathematical thinking which begins from an understanding of euclid geometry to non euclid geometry with a minimum score of 70 and less than 80	Student be able to develop mathematical thinking which begins from an understanding of euclid geometry to non euclid geometry with a minimum score of 55 and less than 70	Student be able to develop mathematical thinking which begins from an understanding of euclid geometry to non euclid geometry with a score less than 55
SKI-2	Able to implement basic principles of mathematics to solve simple	Student be able to implement understanding of euclid geometry and non euclid geometry in solving geometry problems with a minimum score of 80	Student be able to implement understanding of euclid geometry and non euclid geometry in solving geometry problems with a	Student be able to implement understanding of euclid geometry and non euclid geometry in solving geometry problems with a	Student be able to implement understanding of euclid geometry and non euclid geometry in solving geometry problems with a score less than 55

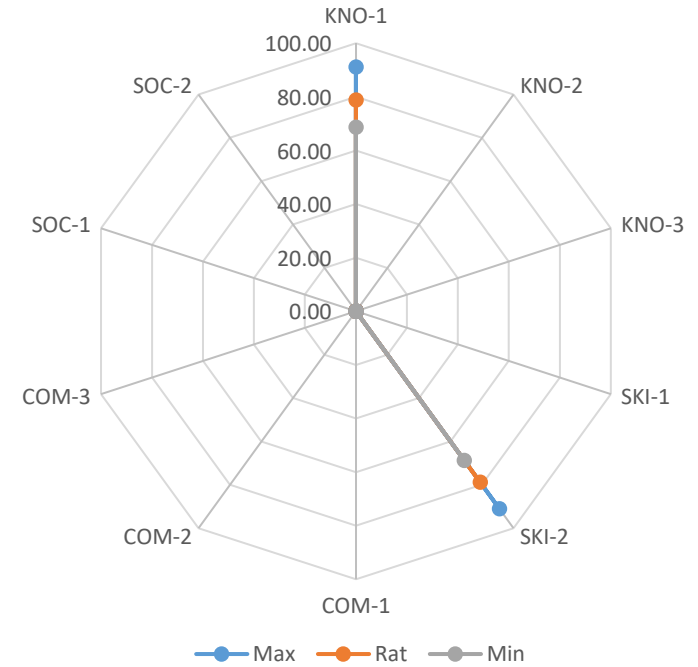
	mathematics problems		minimum score of 70 and less than 80	minimum score of 55 and less than 70	
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	CLASSICAL VALUE OF PLO	
	KNO-1	SKI-2
Max	91.13	91.13
Rat	78.87	78.87
Min	68.75	68.75
	ACHIEVEMENT NUMBER OF PLO	
E	32.00	32.00
G	30.00	30.00
S	3.00	3.00
F	0.00	0.00
	65.00	65.00
	ACHIEVEMENT PERCENTAGE OF PLO (%)	
E	49.23	49.23
G	46.15	46.15
S	4.62	4.62
F	0.00	0.00
	100.00	100.00

ACHIEVEMENT PERCENTAGE OF PLO



CLASSICAL VALUE OF PLO



STUDENT'S
LEARNING
PERFORMANCE
ANALYSIS

On average, students who program geometry systems have mastered the material given. Of the 65 students who took this course, the average scores for PLO were 78.87% and 78.87%, respectively. Even though only 49.23% of the total students received the excellent predicate for both PLOs, in this course there were no students who received the fail predicate. As many as 46.15% and 4.62% of students received the good and satisfy predicate for both PLOs in the geometry system subject.

RECOMMENDATION FOR FUTURE LEARNING	:	There are several things that are recommended for improvement for the next lecture, namely: <ol style="list-style-type: none">1. Maintain a learning pattern that activates students through group discussions and presentations so that students are better prepared to learn any material given2. Give additional assignments to students to find out their initial knowledge of euclidean geometry to practice deductive thinking patterns that will be used in non-euclid geometry.
RECOMMENDATION FOR INSTITUTION	:	No recommendation



NASKAH SOAL UJIAN TENGAH SEMESTER GASAL 2019/2020

Mata Kuliah/Kode : Sistem Geometri
Dosen Pengampu : Prof. Dr. Mega Teguh Budiarto, M.Pd.
Program/Kelas : S1 Pendidikan Matematika
Durasi/Waktu : 100 menit/ 09.00-10.40 WIB
Sifat : Closed book

Petunjuk:

1. Bacalah dan cermati semua soal berikut.
2. Kerjakan semua soal dengan langkah-langkah yang benar dan berikan alasan secara logis.
3. Kejujuran utama dalam mengerjakan UAS ini, jika Anda melakukan kecurangan maka nilai UAS dianggap 0.
4. Tidak harus urut dalam mengerjakan soal.

1. Buatlah tabel perbedaan dan persamaan dari 5 jenis geometri yaitu geometri Euclid, geometri netral, geometri insidensi, geometri terurut, dan geometri proyektif! [Skor 50]

2. Diberikan,

Diketahui aksioma dan teorema sebagai berikut:

Aksioma 1: Garis adalah himpunan titik-titik yang mengandung paling sedikit dua titik Aksioma 2 : Dua titik yang berlainan terkandung dalam tepat satu garis

Teorema 1: Dua garis yang berbeda bersekutu paling banyak pada satu titik

Teorema 2: Jika dua garis yang berbeda berpotongan maka kedua garis itu termuat tepat dalam satu bidang

Buktikan:

Setiap bidang memuat paling sedikit 3 garis yang tidak konkuren!

[Skor 50]



NASKAH SOAL UJIAN AKHIR SEMESTER GASAL 2019/2020

Mata Kuliah/Kode	: Sistem Geometri
Dosen Pengampu	: Prof. Dr. Mega Teuk Budiarto, M.Ed.
Program/Kelas	: S1 Pendidikan Matematika
Hari & Tanggal	: Selasa, 17 Desember 2019
Durasi/Waktu	: 100 menit/ 09.00-10.40 WIB
Sifat	: Closed book

Petunjuk:

- Bacalah dan cermati semua soal berikut.
 - Kerjakan semua soal dengan langkah-langkah yang benar dan berikan alasan secara logis.
 - Kejujuran utama dalam mengerjakan UAS ini, jika Anda melakukan kecurangan maka nilai UAS dianggap 0.
 - Tidak harus urut dalam mengerjakan soal.
-
- Buatlah tabel perbedaan dan persamaan dari 5 jenis geometri yaitu geometri Euclid, geometri netral, geometri insidensi, geometri terurut, dan geometri proyektif! [Skor 25]
 - Diberikan,
Diketahui aksioma dan teorema sebagai berikut:
Aksioma 1: Garis adalah himpunan titik-titik yang mengandung paling sedikit dua titik
Aksioma 2 : Dua titik yang berlainan terkandung dalam tepat satu garis
Teorema 1: Dua garis yang berbeda bersekutu paling banyak pada satu titik
Teorema 2: Jika dua garis yang berbeda berpotongan maka kedua garis itu termuat tepat dalam satu bidang
Buktikan:
Setiap bidang memuat paling sedikit 3 garis yang tidak konkuren! [Skor 25]
 - Deskripsikan persamaan dan perbedaan antara geometri Euclid, geometri Lobachevsky, dan geometri Riemann! [Skor 25]
 - Gambar dan tentukanlah persamaan hiperbola dalam geometri taxicab dengan titik tetap $A(-3, -3)$, $B(6,5)$, dan direktriknya 3. [Skor 25]