SEMESTER LEARNING PLAN

LINEAR ALGEBRA II COURSES
(23H01120103)

TEACHING TEAM

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STUDI PROGRAM OF MATHEMATICS - S1
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
HASANUDDIN UNIVERSITY
MAKASSAR
2025

STUDY PROGRAM OF MATEMATIKA - S1
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
HASANUDDIN UNIVERSITY

Vision

The scientific vision is to become a study program with an international reputation in the development of mathematics based on the Indonesian maritime continent by 2030

Vision Strategy

Misson

To fulfill the above vision, the Undergraduate Mathematics Study Program has four missions, namely:

- Organizing innovative and effective mathematics learning to improve the quality and creativity of students in order to compete nationally and internationally.
- Improving a research culture that produces internationally reputable publications.
- Playing an active role in community service activities and collaborating with other academic institutions, government, business, media and society.
- Carry out governance in the Mathematics Study Program that is effective, efficient and transparent based on IT and ISO 9001:2015 standards to achieve the tridharma goals.

Graduate Profiles

Gagal diterjemahkan

PLO charged to courses

CPL-9 (S2) - The students are able to adapt and develop self-abilities, both in mathematics and other relevant areas of science in their professional lives

CPL-2 (P2) - The students are able to identify objects, techniques, and theorems in fundamental mathematics, and making a connection for solving problems

CPL-3 (KU1) - The students are able to analyse a mathematical problem with logic, analytic, and systematic structure

CPL-6 (KK2) - The students are able to apply the mathematical method for solving a mathematical related-problem with or without the aid of computers and software

Course Learning Outcomes (CLO)

CPMK-1: Students are able to use concepts that can be diagonalized and linear transformations in solving linear algebra problems (CPL2 dan CPL3)

CPMK-2: Students will be able to apply theorems to prove statements in linear algebra (CPL6)

CPMK-3: Students will be able to communicate linear algebra ideas both orally and in writing in groups (CPL9)

Sub-CLO

Sub CPMK-1: Students understand the lecture contract. Students are able to choose unit basis vectors in the RHKD that are mutually orthogonal, formulate the distance between two vectors and the projection of a vector onto a subspace, and apply the Cauchy Schwarz inequality, determine the orthogonal space and orthogonal complement of a vector space, and determine a basis for the orthogonal complement (CPMK-1)

Sub CPMK-2: Able to find orthogonal or orthonormal basis with Gram Schmidt process, and state the Best Approach Theorem in determining the least squares solution of normal system. Able to use transition

matrix P to find new/old coordinates of each vector as a solution of SPLP[v]B' = [v]B or P^-1[v]B = [v]B'. (CPMK-1, CPMK-2 dan CPMK-3)

Sub CPMK-3: Able to give an example of a mapping is (or is not) a linear transformation, able to formulate a linear transformation of a map of basis vectors, able to prove that determining the coordinates of a vector is a linear transformation. Able to give an example and determine the kernel and range of a linear mapping, able to determine the rank and nullity of a linear mapping, determine the composition and inverse of a linear transformation. (CPMK-1 dan CPMK-2)

Sub CPMK-5: Students are able to expand the concept of linear transformation in matrices as well as similarity and its properties. (CPMK-2)

Sub CPMK-6: Students are able to apply linear algebra concepts to various problems. (CPMK-1, CPMK-2 dan CPMK-3)

Learning Analytics

Linear Algebra II

↑

Students are able to apply linear algebra concepts to various problems. (CPMK-1, CPMK-2 dan CPMK-3)

↑

Students are able to expand the concept of linear transformation in matrices as well as similarity and its properties. (CPMK-2)

↑

Able to give an example of a mapping is (or is not) a linear transformation, able to formulate a linear transformation of a map of basis vectors, able to prove that determining the coordinates of a vector is a linear transformation. Able to give an example and determine the kernel and range of a linear mapping, able to determine the rank and nullity of a linear mapping, determine the composition and inverse of a linear transformation. (CPMK-1 dan CPMK-2)

↑

Able to find orthogonal or orthonormal basis with Gram Schmidt process, and state the Best Approach Theorem in determining the least squares solution of normal system. Able to use transition matrix P to find new/old coordinates of each vector as a solution of SPLP[v]B' = [v]B or P^-1[v]B = [v]B'. (CPMK-1, CPMK-3 dan CPMK-2)

↑

Students understand the lecture contract. Students are able to choose unit basis vectors in the RHKD that are mutually orthogonal, formulate the distance between two vectors and the projection of a vector onto a subspace, and apply the Cauchy Schwarz inequality, determine the orthogonal space and orthogonal complement of a vector space, and determine a basis for the orthogonal complement (CPMK-1)

Have passed the course Linear Algebra I

HASANUDDIN UNIVERSITY
FAKULTY OF MATHEMATICS AND NATURAL SCIENCES
STUDY PROGRAM OF MATHEMATICS - S1
SEMESTER LEARNING PLAN

Course	Code	Cource Group	Credits	SEMESTER	Compilation Date
Linear Algebra II	23H01120103	Algebra	3	3	10 Agustus 2024

AUTHORITY	SLP Developer Lecturer	Coordinator	Head of Study Program
	Prof. Dr. Amir Kamal Amir, M.Sc., Dra. Nur Erawati, M.Si., Prof. Dr. Nurdin, S.Si., M.Si.	Dra. Nur Erawati, M.Si.	Dr. Firman, S.Si.,M.Si.

Learning Outcomes Course

SLOs that are imposed on the course	
SLO-9:	Mahasiswa dapat beradaptasi dan mengembangkan kemampuan diri, baik dalam matematika dan bidang ilmu lain yang relevan dalam kehidupan profesional mereka, dengan budaya belajar sepanjang hayat
SLO-2:	Mahasiswa mampu mengidentifikasi objek, teknik, dan sifat dalam matematika dasar, dan membuat koneksi untuk menyelesaikan masalah
SLO-3:	Mahasiswa mampu menganalisis suatu masalah matematika dengan logika, analitik, dan struktur sistematis
SLO-6:	Mahasiswa dapat menerapkan metode matematika untuk memecahkan masalah terkait matematika dengan atau tanpa bantuan komputer dan perangkat lunak
SLO ⇒ Course Learning Outcomes	
After completing this course, it is expected:	
SLO-2	**CLO-1:** Students are able to use concepts that can be diagonalized and linear transformations in solving linear algebra problems
SLO-3	**CLO-1:** Students are able to use concepts that can be diagonalized and linear transformations in solving linear algebra problems
SLO-6	**CLO-2:** Students will be able to apply theorems to prove statements in linear algebra
SLO-9	**CLO-3:** Students will be able to communicate linear algebra ideas both orally and in writing in groups
CLO ⇒ Sub-CLO	
CLO-1	**Sub-CLO-1:**Students understand the lecture contract. Students are able to choose unit basis vectors in the RHKD that are mutually orthogonal, formulate the distance between two vectors and the projection of a vector onto a subspace, and apply the Cauchy Schwarz inequality, determine the orthogonal space and orthogonal complement of a vector space, and determine a basis for the orthogonal complement
	Sub-CLO-2: Able to find orthogonal or orthonormal basis with Gram Schmidt process, and state the Best Approach Theorem in determining the least squares solution of normal system. Able to use transition matrix P to find new/old coordinates of each vector as a solution of SPLP[v]B' = [v]B or P^-1[v]B = [v]B'.

	Sub-CLO-3: Able to give an example of a mapping is (or is not) a linear transformation, able to formulate a linear transformation of a map of basis vectors, able to prove that determining the coordinates of a vector is a linear transformation. Able to give an example and determine the kernel and range of a linear mapping, able to determine the rank and nullity of a linear mapping, determine the composition and inverse of a linear transformation.
	Sub-CLO-6: Students are able to apply linear algebra concepts to various problems.
CLO-3	**Sub-CLO-2:**Able to find orthogonal or orthonormal basis with Gram Schmidt process, and state the Best Approach Theorem in determining the least squares solution of normal system. Able to use transition matrix P to find new/old coordinates of each vector as a solution of SPLP[v]B' = [v]B or P^-1[v]B = [v]B'.
	Sub-CLO-6: Students are able to apply linear algebra concepts to various problems.
CLO-2	**Sub-CLO-2:**Able to find orthogonal or orthonormal basis with Gram Schmidt process, and state the Best Approach Theorem in determining the least squares solution of normal system. Able to use transition matrix P to find new/old coordinates of each vector as a solution of SPLP[v]B' = [v]B or P^-1[v]B = [v]B'.
	Sub-CLO-3: Able to give an example of a mapping is (or is not) a linear transformation, able to formulate a linear transformation of a map of basis vectors, able to prove that determining the coordinates of a vector is a linear transformation. Able to give an example and determine the kernel and range of a linear mapping, able to determine the rank and nullity of a linear mapping, determine the composition and inverse of a linear transformation.
	Sub-CLO-5: Students are able to expand the concept of linear transformation in matrices as well as similarity and its properties.
	Sub-CLO-6: Students are able to apply linear algebra concepts to various problems.

Correlation between SLOs/CLOs to Sub-CLOs

SLOs that are charged on the Course	CPMK	SUB CPMK	Form of Assessment*					Weight	Value	Student Score
			Formative	Sumative						
				Independent Assignment	Quiz	Case Studies	Project Based			
SLO-3	CLO-1	SUB-CLO-1	□ Formative: Activeness in discussions is assessed based on the class participation rubric	10	0	0	0	10		
SLO-6	CLO-2	SUB-CLO-2		0	20	0	0	20		
SLO-6	CLO-2	SUB-CLO-3		10	20	0	0	30		
SLO-6	CLO-2	SUB-CLO-5		0	0	20	0	20		
SLO-9	CLO-3	SUB-CLO-6		0	0	0	20	20		
				20	40	20	20	100		

Course Description	Evaluating Systems of Linear Equations (including matrices and determinants), Vector Spaces (including basis, dimension, nullity, rank), Eigenvalues and vectors, inner product, least squares solution, orthogonal diagonalization and Linear Transformations include inverses and isomorphisms.
Learning Materials/Subjects	1. Inner product space 2. Orthogonal complement 3. Gram-Schmidt Process 4. Least Square 5. Change of Basis 6. Orthogonal Diagonalization 7. Geometry and Algebra Multiplicity 8. Linear Transformation 9. Kernel and Range 10. Inverse Linear Transformations 11. Matrices of Linear Transformation 12. Similarity 13. Isomorphism
Reference	**Main References**
	Horward Anton, Chris Rorres, 2005. Elementary Linear Algebra, Applications Version, 9th Edition, John Wiley & Sons
	Additional References
	Horward Anton, Chris Rorres, Anton Kaul, 2019. Elementary Linear Algebra, Applications Version, Edition 12, John Wiley & Sons
Teaching Team	Prof. Dr. Amir Kamal Amir, M.Sc., Jusmawati Massalesse, S.Si.,M.Si., Dra. Nur Erawati, M.Si., Prof. Dr. Nurdin, S.Si., M.Si.
Course requirement	Linear Algebra I

Week	**Sub CPMK (End-of-stage learning ability)**	**Penilaian (*Assesment*)**		**Learning Forms and Methods [time estimate]**		**Content**	**Weight of Assessment (%)**
		Indicator	**Techniques & Criteria**	**Offline**	**Online**		
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**

1-3	Students understand the lecture contract. Students are able to choose unit basis vectors in the RHKD that are mutually orthogonal, formulate the distance between two vectors and the projection of a vector onto a subspace, and apply the Cauchy Schwarz inequality, determine the orthogonal space and orthogonal complement of a vector space, and determine a basis for the orthogonal complement (CPMK-1)	**Formative:** Presence, activeness of students. **Sumative:** - Clarity of achievements learning or competency desired. - Accuracy of explanation some product axioms deep and able to differentiate inner product or what is not.	**Formative Criteria:** □ Formative: Activeness in discussions is assessed based on the class participation rubric dinilai dengan rubrik 04 **Sumative Criteria:** Independent Assignment (10) dinilai dengan rubrik 01 **Assessment Technique:** Gagal diterjemahkan	**Studying:** Other methods The lecturer explains the Ali2 Learning Contract, Learning Methods and shares the RPS, including the assessment or evaluation that will be carried out. 3x50'		Tuition Contract, Definition and nature inner product, length / norm, distance, angle size between two vectors and nature inner orthogonal RH-KD. Cauchy-Schwarz inequality, properties of length and distance, angle between 2 vectors, generalization of Pythagorean theorem, vectors that are orthogonal to subspace W, orthogonal complement space, the relationship between row space and zero space of matrix A (or column space with zero space of matrix A) is mutually orthogonal.	10
4-5	Able to find orthogonal or orthonormal basis with Gram Schmidt process, and state the Best Approach Theorem in determining the least squares solution of normal system. Able to use transition matrix P to find new/old coordinates of each vector as a solution of SPLP[v]B' = [v]B or P^-1[v]B = [v]B'. (CPMK-1, CPMK-3, CPMK-2)	**Formative:** Gagal diterjemahkan **Sumative:** Accuracy of the process Gram-Schmidt, accuracy determine a projection vector to one of the subspaces. Accuracy of finding the base orthogonal projection and projection vectors in subspace, accuracy and speed find the least squares solution	**Formative Criteria:** **Sumative Criteria:** Quiz (20) dinilai dengan rubrik 01 **Assessment Technique:** Test and Non-Test	**Studying:** Case Study (Case Study) 2x3x50'		Orthonormal basis, QR-decomposition, coordinate vector relative to the base orthogonal or orthonormal, orthogonal projection vector u on V on subspace W, GramSchmidt process. Approach least squares, orthogonal projection subspace W on V and matrix default, projection x in the column space matrix, solution least squares from a normal system	20

6-8	Students are able to apply linear algebra concepts to various problems. (CPMK-1, CPMK-2, CPMK-3)	**Formative:** Gagal diterjemahkan **Sumative:** Quiz 1	**Formative Criteria:** **Sumative Criteria:** Project Based (20) dinilai dengan rubrik 07 **Assessment Technique:** Gagal diterjemahkan	**Studying:** Case Study (Case Study) 3x50'		Least square root solution of a linear system as well as the QR-Decomposition rule in least squares problems.	20
9-10	Able to give an example of a mapping is (or is not) a linear transformation, able to formulate a linear transformation of a map of basis vectors, able to prove that determining the coordinates of a vector is a linear transformation. Able to give an example and determine the kernel and range of a linear mapping, able to determine the rank and nullity of a linear mapping, determine the composition and inverse of a linear transformation. (CPMK-1, CPMK-2)	**Formative:** Gagal diterjemahkan **Sumative:** Accuracy provides an example mapping (or not) is linear and formulate linear transformations from a map of basis vectors, the accuracy of a proof mapping is (or is not) linear transformation, proof properties of linear transformations Accuracy and speed search for kernels and regions range of linear transformations, accuracy of application formula n = rank + zeroity, accuracy proves something linear transf 1-1 or even has a return	**Formative Criteria:** **Sumative Criteria:** Quiz (20) dinilai dengan rubrik 01 **Assessment Technique:** Test	**Studying:** Group discussion (Small Group Discussion) 2x3x50'		General definition linear transformation, kernel, rank, and nullity of a linear transformation, and their properties.	20

11-12	Able to give an example of a mapping is (or is not) a linear transformation, able to formulate a linear transformation of a map of basis vectors, able to prove that determining the coordinates of a vector is a linear transformation. Able to give an example and determine the kernel and range of a linear mapping, able to determine the rank and nullity of a linear mapping, determine the composition and inverse of a linear transformation. (CPMK-1, CPMK-2)	**Formative:** Gagal diterjemahkan **Sumative:** The accuracy of determining the properties of a linear transformation so that the inverse and composition of the two transformations can be determined.	**Formative Criteria:** **Sumative Criteria:** Independent Assignment (10) dinilai dengan rubrik 04 **Assessment Technique:** Non Test	**Studying:** Case Study (Case Study) 2x3x50'		Composition, inverse, and isomorphism of a linear transformation	10
13-16	Students are able to expand the concept of linear transformation in matrices as well as similarity and its properties. (CPMK-2)	**Formative:** Gagal diterjemahkan **Sumative:** Accuracy in using the matrix as a linear transformation and similarity properties	**Formative Criteria:** **Sumative Criteria:** Case Studies (20) dinilai dengan rubrik 04 **Assessment Technique:** Test and Non-Test	**Studying:** Case Study (Case Study) 2x3x50'		Matrix as a linear transformation and similarity properties of a matrix, as well as the geometry of matrix operators.	20
							100

Matrix of SLO, CLO, and Assessment Method

SLO / CLO	CLO-1	CLO-2	CLO-3
CPL-2 (P2)	Independent Assignment (Weight 10%) Quiz (Weight 20%) Quiz (Weight 20%) Independent Assignment (Weight 10%) Project Based (Weight 20%)		
CPL-3 (KU1)	Independent Assignment (Weight 10%) Quiz (Weight 20%) Quiz (Weight 20%) Independent Assignment (Weight 10%) Project Based (Weight 20%)		
CPL-6 (KK2)		Quiz (Weight 20%) Quiz (Weight 20%) Independent Assignment (Weight 10%) Case Studies (Weight 20%) Project Based (Weight 20%)	
CPL-9 (S2)			Quiz (Weight 20%) Project Based (Weight 20%)

Evaluation Type and Assessment Weight

Type	Assessment Weight
Independent Assignment	20
Quiz	40
Case Studies	20
Project Based	20
Total	100

Assessment and Evaluation of Student Achievement of CLOs

SLOs that are charged on the Course	CLO	SUB CLO	Form of Assessment*					Weight	Value	Student Score
			Formative	Sumative						
				Independent Assignment	Quiz	Case Studies	Project Based			
SLO-3	CLO-1	SUB-CLO-1	□ Formative: Activeness in discussions is assessed based on the class participation rubric	10	0	0	0	10		
SLO-6	CLO-2	SUB-CLO-2		0	20	0	0	20		
SLO-6	CLO-2	SUB-CLO-3		10	20	0	0	30		
SLO-6	CLO-2	SUB-CLO-5		0	0	20	0	20		
SLO-9	CLO-3	SUB-CLO-6		0	0	0	20	20		
				20	40	20	20	100		

Lampiran Rubrik 01 | ASSESMENT TERTULIS

Kriteria Penilaian	Bobot/Skor Penilaian				
	5	4	3	2	1/0
Konsep/ metode yang digunakan	Penjelasan konsep /metode (*) sangat lengkap dan akurat	Penjelasan konsep/metode (*) cukup jelas tetapi beberapa informasi tidak dituliskan secara lengkap.	Penjelasan konsep/metode (*) kurang jelas dan banyak informasi yang tidak dituliskan	Penjelasan yang dituliskan hampir tidak berkaitan dengan konsep/ metode (*)	Tidak memberikan konsep yang dibutuhkan
Sistematika penulisan/ pembuktian	Sistematika penulisan/ pembuktian sangat jelas dan terstruktur	Sistematika penulisan/ pembuktian cukup jelas namun ada langkah yang hilang	Sistematika penulisan/ pembuktian kurang jelas	Sistematika penulisan/ pembuktian tidak jelas	Jawaban tidak benar/ tidak ada
Interpretasi geometri/ kualitatif/ kuantitatif.	Interpretasi geometri/ kualitatif/ kuantitaBtif (*) tepat dan lengkap	Interpretasi geometri/ kualitatif/ kuantitatif (*) cukup lengkap/ tepat	Interpretasi geometri/ kualitatif/ kuantitatif (*) kurang lengkap/ tepat	Interpretasi geometri/ kualitatif/ kuantitatif(*) tidak lengkap/ tepat	Interpretasi geometri/ kualitatif/kuantitatif(*) tidak benar
Perhitungan/kesimpulan	Perhitungan/ kesimpulan sangat akurat/tepat dan disertai alasan yang mendasarinya	Perhitungan/ kesimpulan cukup akurat/tepat dan disertai alasan yang mendasarinya	Kesimpulan cukup tepat, namun tidak disertai alasan yang jelas	Perhitungan/ kesimpulan kurang akurat/tepat dan tidak disertai alasan yang mendasarinya	Perhitungan/kesimpulan salah

Lampiran Rubrik 04 | ASSESMENT DISKUSI

Kriteria Penilaian	Bobot/Skor Penilaian				
	5	4	3	2	1
Kelugasan argumen	Mahasiswa menyampaikan pendapat menggunakan bahasa yang sangat baik, sangat mudah dimengerti, intonasi suara yang sangat jelas	Mahasiswa menyampaikan pendapat menggunakan bahasa yang baik, mudah dimengerti, intonasi suara yang jelas	Mahasiswa menyampaikan pendapat menggunakan bahasa yang cukup baik, cukup mudah dimengerti, intonasi suara yang cukupjelas	Mahasiswa menyampaikan pendapat menggunakan bahasa yang kurang baik, kurang mudah dimengerti, intonasi suara yang kurangjelas	Mahasiswa menyampaikan pendapat menggunakan bahasa yang tidak baik, tidak mudah dimengerti, intonasi suara yang tidakjelas
Parsitipasi aktif	Mahasiswa sangat aktif menyampaikan pendapat/masukannya, sangat aktif memberi jawaban, dan sangat berinsiatif mencari solusi	Mahasiswa aktif menyampaikan pendapat/masukannya, aktif memberi jawaban, dan berinsiatif mencari solusi	Mahasiswa cukup aktif menyampaikan pendapat/masukannya, cukup aktif memberi jawaban, dan cukupberinsiatif mencari solusi	Mahasiswa kurang aktif menyampaikan pendapat/masukannya, kurang aktif memberi jawaban, dan kurangberinsiatif mencari solusi	Mahasiswa tidak aktif menyampaikan pendapat/masukannya, tidakaktif memberi jawaban, dan tidak berinsiatif mencari solusi
Etika dan sikap tata nilai	Mahasiswa sangat mengindahkan etika diskusi akademik secara umum	Mahasiswa mengindahkan etika diskusi akademik secara umum	Mahasiswa cukup mengindahkan etika diskusi akademik secara umum	Mahasiswa kurang mengindahkan etika diskusi akademik secara umum	Mahasiswa tidakmengindahkan etika diskusi akademik secara umum
Kepemimpinan (diskusi kelompok)	Mahasiswa sangat mampu menginisiasi, menggerakkan, mengarahkan, mengorganisir jalannya diskusi	Mahasiswa mampu menginisiasi, menggerakkan, mengarahkan, mengorganisir jalannya diskusi	Mahasiswa cukup mampu menginisiasi, menggerakkan, mengarahkan, mengorganisir jalannya diskusi	Mahasiswa kurang mampu menginisiasi, menggerakkan, mengarahkan, mengorganisir jalannya diskusi	Mahasiswa tidak mampu menginisiasi, menggerakkan, mengarahkan, mengorganisir jalannya diskusi

Lampiran Rubrik 07 | ASSESMENT PEMBUATAN VIDEO

Kategori	Kriteria	Bobot
Konten dan Kesesuaian		
Kejelasan Topik	Jelas dan spesifik tentang topik yang dibahas. Menunjukkan pemahaman yang mendalam tentang topik.	10%
Relevansi dan Akurasi Informasi	Informasi akurat dan relevan dengan topik. Menggunakan sumber terpercaya. Tidak ada kesalahan faktual yang signifikan.	10%
Keterkaitan dengan Tujuan Pembelajaran	Mencapai tujuan pembelajaran yang ditetapkan. Konten video mendukung dan memperluas materi pembelajaran.	10%
Kreativitas dan Originalisitas		
Konsep dan Pendekatan	Menunjukkan kreativitas dan orisinalitas dalam penyampaian pesan. Menggunakan teknik-teknik yang menarik dan efektif untuk menyampaikan informasi.	10%
Kualitas Visual dan Audio	Penggunaan gambar, video, grafik, dan musik yang relevan dan efektif. Kualitas audio jernih dan mudah dipahami.	10%
Keterampilan Editing	Editing yang rapi dan profesional. Transisi antar scene yang mulus dan tidak mengganggu.	5%
Keefektifan Komunikasi		
Organisasi dan Struktur	Video terstruktur dengan baik, dengan alur yang jelas dan logis. Informasi disampaikan secara bertahap dan mudah diikuti.	10%
Kemampuan Presentasi	Penyampaian informasi jelas, lancar, dan antusias. Penggunaan bahasa dan intonasi yang efektif.	10%
Keterlibatan dan Interaktivitas	Menarik perhatian penonton dan mendorong keterlibatan. Menggunakan teknik-teknik untuk menumbuhkan interaksi dan diskusi.	5%
Teknik Pengerjaan		
Kualitas Video dan Audio	Resolusi video dan audio yang baik. Penerapan teknik pengambilan gambar dan editing yang tepat.	10%

Penyerahan dan Ketepatan Waktu	Video diserahkan tepat waktu dan sesuai format yang ditentukan. Tidak ada masalah teknis atau kendala saat menonton video.	10%