

## Universitas Negeri Surabaya Faculty of Mathematics and Natural Sciences Undergraduate Chemistry Study Program

Document Code

## SEMESTER LEARNING PLAN

Courses		CODE	Course	e Family	Credit We	eight	SEMESTER	Compilation Date				
Basic Ch	emistry 1	4720103074			T=3 P=0	ECTS=4.77	1	July 18, 2024				
AUTHOR		SP Develope	er	Cours	se Cluster C	oordinator	Study Program Coordinator					
							Dr. Amaria, M.Si.					
Learning model	Case Studies											
Program		gram that is charge	ed to the course									
Learning		Program Objectives (PO)										
(PLO)	PLO-PO Matrix	C										
		P.O	]									
	PO Matrix at th	e end of each learn	ning stage (Sub-PO)									
		P.O		W	/eek							
		1 2	3 4 5 6	7 8 9	9 10	11 12	13 14 1	.5 16				
Short Course Descript	Chemical Bondi		ethod, Properties of M tions, as well as app									
Referen	ces Main:											
	2. Brady ar	nd Humiston. 2004.Ge	Dasar I .Surabaya: Jur neral Chemistry, Princ ral Chemistry The Esse	iples and Structu	res. New Yo							
	Supporters:											
Support lecturer	Prof. Dr. Suvatno	Herdyastuti, M.Si.	jo, M.Si.									
Week-	Final abilities of each learning stage	Eva	Evaluation		Help Learning, Learning methods, Student Assignments [Estimated time]		rning methods, Learning ent Assignments, material stimated time] [		Learning materials [ References	Assessment Weight (%)		
	(Sub-PO)	Indicator	Criteria & Form	Offline ( offline )	Online	( online )	]					
(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)				

	chemistry as the result of scientific activities that study matter with universal properties	scientific steps 2. Explain extensive and intensive properties 3. Explain the differences in chemical and physical properties of elements, compounds and mixtures	<ul> <li>Criteria:</li> <li>1. The assessment is carried out on the following aspects:</li> <li>2.1. Participation during lectures is carried out through observation (weight 2)</li> <li>3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>4.3. Assignment value for working on questions in writing papers and practicums (weight 2)</li> <li>5.4. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination (UAS) is carried out by assessing all relevant indicators through a written examination with weighting (3)</li> <li>6.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10</li> </ul>	1. Discussion 2. Question and answer 3. Learning strategy concept map 3 X 50			
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	things that underlie stoichiometry, namely: the basic laws of atomic and molecular chemistry, the mole concept and Avogadro's constant, chemical reaction compound formulas as well as molarity and equivalence	1. Explain the basic laws of chemistry 2. Explain the difference between atoms and molecules and the concept of moles 3. Apply Avogadro's constant and compound formulas 4. Apply chemical reactions and balance molarities and equivalents in practice questions	<ul> <li>Criteria: <ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures is carried out through observation (weight 2)</li> <li>C. The Mid-Semester Examination (UTS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>A. Assignment value for working on questions in writing papers and practicums (weight 2)</li> <li>A. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>A. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination (UAS) is carried out by assessing all relevant indicators through a written examination with weighting (3)</li> <li>S. The final NA is (participation value x2) (assignment value x3) (UTS value x 3) (UTS value x 2) UAS value (3) divided by 10</li> </ol></li></ul>	1. Discussion 2. Assignments 3. Concept map learning strategies 4. Practicum 3 X 50			0%
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3 Understand the things that underlie stoichiometry, namely: basic laws of chemistry, atom and molecules, the concept of moles and Avogadro's constant, compound formulas, chemical reactions and molarity and equivalence	chemistry, 2. Explaining the differences between atoms, molecules and mole concepts, 3. Applying Avogadro's	<ul> <li>Criteria: <ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures, carried out through observation (weight 2)</li> <li>The Mid-Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)</li> <li>A.3. Assignment value for working on questions, writing papers and practical work (weight 2)</li> <li>A.4. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)</li> <li>A.5. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination, with a weight of (3)</li> <li>S.5. The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10</li> </ol></li></ul>	1. Discussion 2. Assignments 3. Concept map learning strategies 4. Practicum 3 X 50			0%
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4	Understand the things that underlie stoichiometry, namely: basic laws of chemistry, atoms and molecules, the concept of moles and Avogadro's constant, compound formulas, chemical reactions and molarity and equivalence	1. Explaining the basic laws of chemistry, 2. Explaining the differences between atoms, molecules and mole concepts, 3. Applying Avogadro's constant and compound formulas, 4. Applying chemical reactions and balancing, molarity and equivalence in practice questions	<ul> <li>Criteria: <ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures, carried out through observation (weight 2)</li> <li>C. The Mid-Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)</li> <li>A.3. Assignment value for working on questions, writing papers and practical work (weight 2)</li> <li>A.4. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)</li> <li>A.5. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination, with a weight of (3)</li> <li>S.5. The final NA is (participation value x2) (assignment value x3) (UTS value x2) UAS value (3) divided by 10</li> </ol></li></ul>	1. Discussion 2. Assignments 3. Concept map learning strategies 4. Practicum 3 X 50			0%
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5	Understand the development of discoveries and basic atomic particles according to Rutherford Bohr, wave mechanics and electron configuration	1. Explain the basic particles that make up atoms 2. Explain the development of atomic theory 3. Determine the electronic configuration of various atoms	<ul> <li>Criteria: <ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures is carried out through observation (weight 2)</li> <li>The Mid-Semester Examination (UTS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>A.3. Assignment value for working on questions in writing papers and practicums (weight 2)</li> <li>A. The Final Semester Examination (UAS) is carried out by assessing all relevant value for working on questions in writing papers and practicums (weight 2)</li> <li>The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination (UAS) is carried out by assessing all relevant indicators through a written examination with weighting (3)</li> <li>The final NA is (participation with weighting 4)</li> </ol></li></ul>	1. Discussion 2. Concept map learning strategy 3. Assignment 3 X 50		0%
			weighting (3) 6.5. The final NA			

	development of the use and basis of the periodic system and its relationship to the electronic configuration of elements and periodic properties	development of the Periodic System of Elements and the relationship between electron configurations. 2. Analyze various periodic properties	<ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures is carried out through observation (weight 2)</li> <li>The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>Assignment value for working on questions in writing papers and practicums (weight 2)</li> <li>A The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination (UAS) is carried out by assessing all relevant indicators through a written examination with weighting (3)</li> <li>The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10</li> </ol>	2. Question and answer 3. Assignment 3 X 50			
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8	Midterm Exam	Indicators at	Criteria:	Test			0%
	(UTS)	meetings 1 to 7	1.The assessment	2 X 50			
			is carried out on				
			the following aspects:				
			2.1. Participation				
			during lectures is				
			carried out				
			through				
			observation				
			(weight 2)				
			3.2. The Mid-				
			Semester Examination				
			(UTS) is carried				
			out by assessing				
			all relevant				
			indicators				
			through a written				
			exam with				
			weighting (2) 4.3. Assignment				
			value for working				
			on questions in				
			writing papers				
			and practicums				
			(weight 2)				
			5.4. The Final Semester				
			Examination				
			(UAS) is carried				
			out by assessing				
			all relevant				
			indicators				
			through a written				
			examination with weighting (3)				
			6.5. The final NA				
			is (participation				
			value x2)				
			(assignment				
			value x 3) (UTS				
			value x 2) UAS				
			value (3) divided by 10				
			Dy 10				
		1		I	I	I	

9	Decide the relationship between chemical bonds and	1. Explain the role of electrons in chemical bonds 2. Explain examples	Criteria: 1.The assessment is carried out on	<ol> <li>Discussion</li> <li>Concept</li> <li>map learning</li> </ol>		0%
	chemical forces to	of ionic bonds,	the following	strategy 3. Assignment		
	explain knowledge according to the	covalent bonds, energy, molecular	aspects:	3 X 50		
	study program.	structure bonds	2.1. Participation during lectures is	0 / 1 0 0		
		and other chemical bonds	carried out			
		(vander Waals,	through			
		hydrogen bonds,	observation			
		metallic bonds)	(weight 2)			
			3.2. The Mid-			
			Semester Examination			
			(UTS) is carried			
			out by assessing			
			all relevant			
			indicators through a written			
			exam with			
			weighting (2)			
			4.3. Assignment			
			value for working			
			on questions in writing papers			
			and practicums			
			(weight 2)			
			5.4. The Final			
			Semester Examination			
			(UAS) is carried			
			out by assessing			
			all relevant			
			indicators			
			through a written examination with			
			weighting (3)			
			6.5. The final NA			
			is (participation			
			value x2)			
			(assignment value x 3) (UTS			
			value x 3) (013 value x 2) UAS			
			value (3) divided			
			by 10			

10	Decide the relationship between chemical	1. Explain the role of electrons in chemical bonds,	Criteria: 1.The assessment is carried out on	<ol> <li>Discussion</li> <li>Concept</li> <li>map learning</li> </ol>		0%
	bonds and chemical forces to	2. Explain examples of ionic	the following	strategy 3.		
	explain knowledge	bonds, covalent	aspects:	Assignment		
	according to the	bonds, bond	2.1. Participation	3 X 50		
	study program.	energy, molecular structure and	during lectures,			
		other chemical	carried out			
		bonds (van.der Waals, hydrogen	through			
		bonds, metallic	observation (weight 2)			
		bonds)	3.2. The Mid-			
			Semester			
			Examination			
			(UTS) is carried			
			out by assessing			
			all relevant indicators			
			through a written			
			examination,			
			with a weight of			
			(2)			
			4.3. Assignment			
			value for working on questions,			
			writing papers			
			and practical			
			work (weight 2)			
			5.4. The Final			
			Semester Examination			
			(UAS) is carried			
			out by assessing			
			all relevant			
			indicators			
			through a written			
			examination, with a weight of			
			(3)			
			6.5. The final NA			
			is (participation			
			value x2)			
			(assignment			
			value x 3) (UTS value x 2) UAS			
			value (3) divided			
			by 10			

	terms of the laws of thermodynamics and determine the occurrence of reactions thermodynamically	differences between environmental systems, functions, states, adiabatic processes, isotherms, work, heat capacity, etc.). 2. Explain the First Law of Thermodynamics, Hess's Law, Thermochemical Bond Energy, Second Law of Thermodynamics, Entropy, Free Energy.	<ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures is carried out through observation (weight 2)</li> <li>The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>Assignment value for working on questions in writing papers and practicums (weight 2)</li> <li>A The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination (UAS) is carried out by assessing all relevant indicators through a written examination with weighting (3)</li> <li>The final NA is (participation value x2) (assignment value x 3) (UTS value x 2) UAS value (3) divided by 10</li> </ol>	2.Assignment 3.Practicum 3 X 50			
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12       Understand the terms, laws of thermodynamics, and determine the cocurrence of reactions thermodynamically       1. Explain the differences between system, environment, state function, adiabatic process, isotherm process, isotherm process, isotherm process, isotherm process, isotherm process isotherm isother isotherm process isotherm isother isotherm process isotherm process isotherm process isotherm process isotherm process isotherm isotherm process isotherm isotherm process isotherm isotherm process isotherm process isotherm isotherm process isotherm process isotherm isotherm process isotherm process isotherm process isotherm isotherm process isotherm isotherm process isotherm process isotherm isotherm process isotherm preverse isotherm procesemplexite.        1	0%
Thermodynamics, and determine the occurrence of reactions thermodynamically       between system, state function, stat	
occurrence of reactions thermodynamically       state function, adiabatic process, isotherm process, isotherm process, isotherm process, work, heat capacity, etc.) 2. Explain the First Law of Thermodynamics, Hess's Law, Bond Energy,       1.1 Participation during lectures, carried out through observation (weight 2)         3.2. The Mid- Semester       3.2. The Mid- Semester         1.1 Participation during lectures, carried out through observation (Weight 2)         3.2. The Mid- Semester         1.1 Participation during lectures, carried out through observation (Weight 2)         3.2. The Mid- Semester         2.3.2 The Mid- Semester         3.4 Sub         3.5 Sub         3.6 Sub         3.7 Sub         3.7 Sub         3.8 Sub         3.8 Sub         3.9 Sub         3.1 Participation during lectures, carried out through out by assessing all relevant indicators through a written examination, with a weight of (2)         4.3 Assignment value for working on questions, writing papers and practical work (weight 2)         5.4. The Final Semester	
reactions       adiabatic process, isotherm process, work, heat capacity, etc.). 2. Explain the First Law of Thermodynamics, Hess's Law, Bond Energy, Thermochemistry, Second Law of Thermodynamics, Entropy, Free Energy.       aspects: 2.1. Participation during lectures, carried out through observation (weight 2)         3.2. The Mid- Semester       Semester         Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)       3.2. The Mid- Semester         4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester       4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
thermodynamically       process, isotherm process, work, heat capacity, etc.). 2. Explain the First Law of Thermodynamics, Hess's Law, Bond Energy.       2.1. Participation during lectures, carried out through observation (weight 2)         3.2. The Mid-Seemester       Second Law of Thermodynamics, Entropy, Free Energy.       3.2. The Mid-Seemester         1.1. Participation on the First Autor of Thermodynamics, Entropy, Free Energy.       3.2. The Mid-Seemester       Seemester         2.1. Participation on the First Autor of Thermodynamics, Entropy, Free Energy.       3.2. The Mid-Seemester       Seemester         2.3. Assignment value for working on questions, writing papers and practical work (weight 2)       3.4. The Final Seemester       Seemester	
during lectures, carried out through observation (weigh 2) 3.2. The Mid- Seenester Energy, Second Law of Thermodynamics, Entropy, Free Energy.	
etc.). 2: Explain the First Law of Thermodynamics, Hess's Law, Bond Energy, Thermochemistry, Second Law of Thermodynamics, Entropy, Free Energy.	
the First Law of Thermodynamics, Hess's Law, Bond Energy, Thermodynamics, Entropy, Free Energy.	
Hess's Law, Bond Energy, Thermochemistry, Second Law of Thermodynamics, Entropy, Free Energy.	
Energy, Thermochemistry, Second Law of Thermodynamics, Entropy, Free Energy. 3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2) 4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
Thermochemistry, Second Law of Thermodynamics, Entropy, Free Energy.       3.2. Ine Mid-Seemster         UTS) is carried       Semster         Duty of the term of term of the term of te	
Second Law of Thermodynamics, Entropy, Free Energy. Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2) 4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
Entropy, Free Energy. UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2) 4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
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with a weight of (2) 4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
(2) 4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
4.3. Assignment value for working on questions, writing papers and practical work (weight 2) 5.4. The Final Semester	
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writing papers and practical work (weight 2) 5.4. The Final Semester	
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work (weight 2) 5.4. The Final Semester	
5.4. The Final Semester	
Semester	
Examination	
(UAS) is carried	
out by assessing	
all relevant	
indicators	
through a written	
examination,	1
with a weight of	
(3)	
6.5. The final NA	
is (participation	
value x2)	
(assignment	1
value x 3) (UTS	1
value x 2) UAS	1
value (3) divided	1
by 10	

13	Understand several	1. Compare the	Criteria:	1. Discussion		0%
	aspects of solutions and apply them in quantitative terms	I. compare the properties of electrolyte and non-electrolyte solutions. 2. Distinguish several collogative properties of solutions. 3. Differentiate acid- base theory 4. Calculate the pH of the solution. 5. Explain hydrolysis and buffer solutions. 6. Determine the pH indicator path. 7. Perform acid- base titration	<ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures is carried out through observation (weight 2)</li> <li>The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written exam with weighting (2)</li> <li>Assignment value for working on questions in writing papers and practicums (weight 2)</li> <li>The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination (UAS) is carried out by assessing all relevant indicators through a written examination with weighting (3)</li> <li>The final NA is (participation value x2) (assignment value x3) (UTS value x 2) UAS value (3) divided by 10</li> </ol>	<ol> <li>Discussion</li> <li>Question and answer</li> <li>Practice questions 4.</li> <li>Practicum</li> <li>X 50</li> </ol>		

14	Understand several aspects of	<ol> <li>Compare the properties of</li> </ol>	Criteria: 1.The assessment	<ol> <li>Discussion</li> <li>Question</li> </ol>		0%
	solutions and apply	electrolyte and		and answer		
	them in quantitative	non-electrolyte	is carried out on	3. Practice		
	terms	solutions. 2.	the following	guestions 4.		
		Distinguish	aspects:	Practicum		
		several collogative	2.1. Participation	3 X 50		
		properties of	during lectures,	3 × 30		
		solutions. 3.	carried out			
		Differentiate acid-	through			
		base theory 4.	observation			
		Calculate the pH of the solution. 5.	(weight 2)			
		Explain hydrolysis	3.2. The Mid-			
		and buffer	Semester			
		solutions. 6.	Examination			
		Determine the pH	(UTS) is carried			
		indicator path. 7.	out by assessing			
		Perform acid- base titration	all relevant			
		sase unanon	indicators			
			through a written			
			examination,			
			with a weight of			
			(2)			
			4.3. Assignment			
			value for working			
			on questions,			
			writing papers			
			and practical			
			work (weight 2)			
			5.4. The Final			
			Semester			
			Examination			
			(UAS) is carried			
			out by assessing			
			all relevant			
			indicators			
			through a written			
			examination,			
			with a weight of			
			(3)			
			6.5. The final NA			
			is (participation			
			value x2)			
			(assignment			
			value x 3) (UTS			
			value x 2) UAS			
			value (3) divided			
			by 10			
			5, 10			

15	Understand several aspects of solutions and apply them in quantitative terms	1. Compare the properties of electrolyte and non-electrolyte solutions. 2. Distinguish several collogative properties of solutions. 3. Differentiate acid- base theory 4. Calculate the pH of the solution. 5. Explain hydrolysis and buffer solutions. 6. Determine the pH indicator path. 7. Perform acid- base titration	<ul> <li>Criteria: <ol> <li>The assessment is carried out on the following aspects:</li> <li>Participation during lectures, carried out through observation (weight 2)</li> <li>C. The Mid-Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)</li> <li>A.3. Assignment value for working on questions, writing papers and practical work (weight 2)</li> <li>A.4. The Final Semester Examination (UAS) is carried out by assessing all relevant indicators through a written examination, with a weight of (2)</li> </ol></li></ul>	1. Discussion 2. Question and answer 3. Practice questions 4. Practicum 3 X 50		0%
			examination, with a weight of (3)			

16       Final Semester Examination (UAS)       Indicators at meetings 9 to 15       Criteria:       Test 1. The assessment is carried out on the following aspects:         2.1. Participation during lectures, carried out through observation (weight 2)       2.1. Participation during lectures, carried out through observation (Weight 2)         3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination, with a weight of	0%
is carried out on the following aspects: 2.1. Participation during lectures, carried out through observation (weight 2) 3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
the following aspects: 2.1. Participation during lectures, carried out through observation (weight 2) 3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
aspects: 2.1. Participation during lectures, carried out through observation (weight 2) 3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
2.1. Participation         during lectures,         carried out         through         observation         (weight 2)         3.2. The Mid-         Semester         Examination         (UTS) is carried         out by assessing         all relevant         indicators         through a written         examination,	
during lectures, carried out through observation (weight 2) 3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
carried out through observation (weight 2) 3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
through         observation         (weight 2)         3.2. The Mid-         Semester         Examination         (UTS) is carried         out by assessing         all relevant         indicators         through a written         examination,	
observation         (weight 2)         3.2. The Mid-         Semester         Examination         (UTS) is carried         out by assessing         all relevant         indicators         through a written         examination,	
observation         (weight 2)         3.2. The Mid-         Semester         Examination         (UTS) is carried         out by assessing         all relevant         indicators         through a written         examination,	
3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
3.2. The Mid- Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
Semester Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
Examination (UTS) is carried out by assessing all relevant indicators through a written examination,	
(UTS) is carried out by assessing all relevant indicators through a written examination,	
out by assessing       all relevant       indicators       through a written       examination,	
all relevant indicators through a written examination,	
indicators through a written examination,	
through a written examination,	
examination,	
with a weight of	
(2)	
4.3. Assignment	
value for working	
on questions,	
writing papers	
and practical	
work (weight 2)	
5.4. The Final	
Semester	
Examination	
(UAS) is carried	
out by assessing	
all relevant indicators	
through a written	
examination,	
with a weight of	
(3) G The Fred MA	
6.5. The final NA	
is (participation	
value x2)	
(assignment	
value x 3) (UTS	
value x 2) UAS	
value (3) divided	
by 10	

 Evaluation Percentage Recap: Case Study

 No
 Evaluation

 Percentage

 0%

## Notes

- Learning Outcomes of Study Program Graduates (PLO Study Program) are the abilities possessed by each Study
  Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their
  study program obtained through the learning process.
- The PLO imposed on courses are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
- 3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
- 4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
- 5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
- 6. Assessment Criteria are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
- 7. Forms of assessment: test and non-test.
- 8. Forms of learning: Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
- Learning Methods: Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
- Learning materials are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- **11. The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.

12. TM=Face to face, PT=Structured assignments, BM=Independent study.