COURSE PORTFOLIO
AGROFORESTRY

KODE MK PG191117

BACHELOR DEGREE PROGRAM
AGROTECHNOLOGY
FACULTY OF AGRICULTURE

**UNIVERSITAS PEMBANGUNAN NASIONAL
"VETERAN" JAWA TIMUR**

Nama MK / Course Name : AGROFORESTRY
Kode MK / Course Code : PG191117
Semester : 5 (Five)
Koordinator / Leader : Dr. Ir. Rossyida Priyadarshini, MP.
Team Teaching : 1. Dr. Ir. Bakti Wisnu Widjajani, MP.
2. Dr. Ir. Penta Suryaminarsih, MP.
3. Fitri Wijayanti, SP., MP.
4. Safira Riska Lestari, SP., MP.

Process	Person in Charge			Date
	Name	**Position**	**Signature**	
Perumus *Preparation*				
Pemeriksa dan Pengendali *Review and Control*				
Persetujuan *Approval*				
Penetapan Determination				

ENDORSEMENT PAGE

COURSE PORTFOLIO
<<KODE DAN NAMA MATA KULIAH>>
BACHELOR DEGREE PROGRAM OF AGROTECHNOLOGY
Universitas Pembangunan Nasional "Veteran" Jawa Timur
Nomor Pengesahan: xxx – xxx - xxxx

Kode:	Bobot SKS / credits:	Rumpun MK / cluster:	Semester:
Otorisasi Authorization	**Tim Pengajar Team Teaching** 1. 2. 3.	**Koordinator MK Course Cluster Coord**	**Ketua Jurusan Dept Head**
	TTD/ Sign	TTD/ Sign	TTD/ Sign
	Date:	Date:	Date:

A. Capaian Pembelajaran (*Learning Outcomes*) Program Studi Agroteknologi, UPN "Veteran" Jawa Timur

Kode CPL	Deskripsi CPL
CPL 1	Berkarakter bela negara, yaitu cinta tanah air, kesadaran berbangsa dan bernegara, meyakini Pancasila sebagai ideologi negara, rela berkorban untuk bangsa dan negara, serta memiliki kemampuan awal bela negara;
CPL 2	Menunjukkan sikap bertanggungjawab atas pekerjaan di bidang keahliannya secara mandiri;
CPL 3	Mampu memelihara dan mengembangkan jejaring kerja secara kolaboratif dengan pembimbing, kolega, sejawat, baik di dalam maupun di luar lembaganya;
CPL 4	Kemampuan menerapkan pengetahuan ilmu tanaman dan konsep dasar produksi tanaman, tanah dan konsep dasar sumber daya lahan, serta hama dan penyakit tanaman dan konsep perlindungan tanaman terhadap hama penyakit secara terpadu;
CPL 5	Kemampuan menguasai prinsip-prinsip penerapan teknologi pertanian untuk menyelesaikan permasalahan di bidang pertanian;
CPL 6	Kemampuan menganalisis, merencanakan dan menerapkan sistem pertanian dataran rendah mengacu pada prinsip pertanian berkelanjutan, baik yang bersifat modern maupun yang mengangkat kearifan lokal, secara efektif dan produktif;
CPL 7	Kemampuan mengkaji implementasi penerapan sistem pertanian berkelanjutan yang memperhatikan dan menerapkan kaidah, tata cara dan etika ilmiah dalam rangka menghasilkan solusi, gagasan, dan desain berdasarkan hasil analisis informasi dan data;
CPL 8	Kemampuan menguasai teknologi perbanyakan tanaman dan pengelolaan tanaman sesuai dengan zona agroklimat;
CPL 9	Kemampuan mengidentifikasi, merumuskan, menganalisis dan menyelesaikan permasalahan bidang sumberdaya lahan;
CPL 10	Kemampuan mendiagnosa, menganalisis dan menyelesaikan permasalahan hama penyakit tanaman;
CPL 11	Kemampuan menguasai prinsip dan issue terkini tentang pertanian dataran rendah dan permasalahan lingkungannya;
CPL 12	Penguasaan teknologi dan mampu mengkomunikasikan dengan masyarakat dalam menyelesaikan permasalahan pertanian baik lisan maupun tulisan.

B. CPL yang dibebankan ada MK / *PLO Realized in Course*

CPL-PRODI yang dibebankan pada MK	
CPL 4	Able to apply knowledge of plant science and basic concepts of crop production, soil and land resources management, plant pests and diseases, and the concept of plant protection against pests and diseases in an integrated manner.
CPL 7	Able to analyse the implementation of sustainable farming system in regards to the principle, procedure, and scientific ethics in order to produce solution, ideas, and design based on the result of data and information analysis.
CPL 9	Able to apply knowledge of identifying, formulating, analyzing, planning and applying land resource management
Capaian Pembelajaran Mata Kuliah (CPMK) / Course Learning Outcomes (CLO) *) Bila CP MK sbg penjabaran kemampuan setiap Tahap Pembelajaran dalam MK maka CPMK = Sub CPMK	
CPMK/CLO 1	Able to explain the concept and principle of agroforestry which refers to sustainable agriculture principles, and is based on the local wisdom
CPMK/CLO 2	Capable in managing and developing marginal land through implementing appropriate agroforestry concepts to get the healthy and productive land
CPMK/CLO 3	Capable to plan, and design the agroforestry concept on each type of land use to maintain and increase the productive land
CPMK/CLO 4	capable to describe the role and function of agroforestry in the nutrient and water cycle; carbon cycle, as well as their role in controlling pest and disease
CPMK/CLO 5	capable in understanding the interaction of agroforestry components the processes affected, and use this knowledge to plan, design, and manage the unsustainable land unproductive land.

*) dalam tabel ini dituliskan CPL apa saja yang masuk dalam Mata Kuliah
**) dalam tabel ini dituliskan rumusan CPMK apa saja yang masuk dalam Mata Kuliah

MATRIX OF LEARNING OUTCOME – SUBJECT COURSE

	LEARNING OUTCOME FOR EACH SUBJECT COURSE															

No	SUBJECT COURSE	CODE	CREDIT UNITS	Semester	LO 1	LO 2	LO 3	CPL 4	LO 5	LO 6	LO 7	LO 8	LO 9	LO 10	LO 11	LO 12
1	Geo & Klasifikasi Tnh (P)	PG141216	3	V												
2	Agrohidrologi	PG141217	2	V					V	V	V				V	
3	Teknologi Benih	PG141119	3	VI												
4	Survai Dan Evaluasi Lahan	PG141120	3	VI		V	V			V			V			
5	Pengelolaan Tanah dan Air	PG141121	3	VI												
6	Agroforesty	PG141118	2	V				V			V		V			
7	Manajemen Pembibitan (P)	PG141204	2	VI												
8	Konservasi Tanah dan Air (P)	PG141218	3	VI					V		V		V			V
9	Kesehatan Tanah (P)	PG141220	2	VI												

LESSON PLANNING

Determination the Weight of Learning Outcome on This Course

No	Semester	Course Code	Course Subject	Credit unit	PLO-1	PLO-2	PLO-3	PLO-4	PLO-5	PLO-6	PLO-7	PLO-8	PLO-9	PLO-10	PLO-11	PLO-12
	5-6	PG141118	Agroforestry	3				X			X		X			

LESSON PLAN : COURSE SUBJECT: AGROFORESTRY

	UNIVERSITY OF PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR AGRICULTURE FACULTY AGROTECHNOLOGY PRODI: S1					

SUBJECT COURSE		Code	Classes of Courses	Weight (credit unit)		SEMESTER	Tgl Penyusunan
AGROFORESTRY			Soil Sciences	2	1	V (Five)	
AUTHORIZATION		Lesson Plan Maker	COORDINATOR of COURSE	Head of The Study Programme			
			Dr. Ir. Bakti Wisnu Widjajani, MP	Dr.Ir. Bakti Wisnu Widjayani, MP			

Learning Outcome (LO)	**Determination of the Weight of Learning Output on This Course** PLO-4: Applying the knowledge of Plant Science, the basic concepts of Plant Production, land resources, and soil science, and the integrated concept of plant protection again of pests and diseases.; PLO-7: able to study the implementation of sustainable agriculture systems Base on scientific rules aplication, procedures and ethics in order to produce solutions, ideas, and designs based on the results of information and data analysis PLO – 9: Capable of identifying, formulating, analyzing, and solving land resources problems
	Learning outcome: Capable of applying the concept of agroforestry to developing marginal land to become productive land
	Course Learning Outcome CLO 1: Able to explain the concept and principle of agroforestry which refers to sustainable agriculture principles, and is based on the local wisdom CLO 2: Capable in managing and developing marginal land through implementing appropriate agroforestry concepts to get the healthy and productive land CLO 3: Capable to plan, and design the agroforestry concept on each type of land use to maintain and increase the productive land

CLO -4: capable to describe the role and function of agroforestry in the nutrient and water cycle; carbon cycle, as well as their role in controlling pest and disease											

CLO -4: capable to describe the role and function of agroforestry in the nutrient and water cycle; carbon cycle, as well as their role in controlling pest and disease

CLO-5: capable in understanding the interaction of agroforestry components the processes affected, and use this knowledge to plan, design, and manage the unsustainable land unproductive land

	CPL-01	CPL-02	CPL-03	CPL-04	CPL-05	CPL-06	CPL-07	CPL-08	CPL-09	CPL-10	CPL-11
CPMK 1/CLO1				v							
CPMK 2/CLO2				v							
CPMK 3/CLO 3							v				
CPMK 4/CLO 4							v				
CPMK 5/CLO 5									v		

Short Description of the Course	Agroforestry is a branch of science in agriculture and forestry and has been practiced by farmers for a long time. In simple terms, Agroforestry means planting trees on agricultural land, with farmers or the community as the main element (subjects). Agroforestry studies do not only focus on technical and biophysical issues but also social, economic, and cultural issues that are always changing from time to time, so that agroforestry is a dynamic branch of science in the context of sustainable agricultural development.
Main subject	This course consists of : classification and component of agroforestry; Tree-soil-crop interaction; the function of agroforestry; nutrient and water cycle, carbon cycle on Agroforestry systems, tree domestication, socio-economic cultural on agroforestry, institutional policy on developing agroforestry, and managemen of agroforestry; and agroforestry systems in Indonesia.
Literature	**Mandatory:**

No.	Judul	Penulis
1.	Toward Integrated Natural Resource Management in Forest margins of the Humid Tropics: local action and global concerns	ICRAF, 2001, 2003
2.	An Introduction to Agroforestry	P.K. R. Nair, 1993
3.	Agroforest khas Indonesia	H.D. Foresta, A. Kusworo, G. Michon dan W.A. Djatmiko, 2000
4.	Tree-Crop Interactions: A Physiological Approach	Chin K. Ong and Peter Huxley

5.	Agroforestry for Soil Conservation	A. Young, 1990
6.	Agroforestry for Soil Fertility	A. Young, 1990
7.	WaNuLCAS, Model Simulasi untuk Sistem Agroforestri	K. Hairiah, Widianto, S.R. Utami dan B. Lusiana, 2002
8.	Dll.	

Optional :

Article/journal related with the topics of agroforestry

Other source of agroforestry such as: ICRAF website, INAFE website, agroforestry webinar etc

Media Pembelajaran	Software :	Hardware :
		LCD Projector & PC

Team Teaching	

The requirement lesson	

Weeks -	Final abilities at each stage of lesson learning (Sub-CP-MK)	Evaluation		Learning Model, Learning method, and student assignment [Estimated time]		Learning material [Literature]	Weight evaluation (%)
		Indicator of Evaluation	Criteria & assessment form	Daring (online)	Daring(online)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	The students are able to : 1. Describes : a. Definition of agroforestry b. The philosophy of agroforestry, history of	**The ability to describe correctly, accurately, and precisely** The definition of agroforestry, the philosophy, history, and development of	**Test** Assess the student's ability in describing accurately and correctly related with:	Show the film and video:	The lesson explains: The Lesson plan Learning contract semester Describing the agroforestry concept,	**An Introduction to Agroforestry**	5%

	agroforestry and their development c. Processes under agroforestry system d. The advantage, constraints, potency, and challenges of the agroforestry system	agroforestry; included the processes, advantages, constraints potency, and challenges of developing agroforestry	the agroforestry concept: the criteria of agroforestry how agroforestry has been formed and developed The advantage of agroforestry implementation, as well as the constraint and challenges of agroforestry development		definition, and characteristics Agroforestry history, how is the agroforestry formed and developed The advantage, constraints,challenging in applying and developing agroforestry **Workhome discussion on 1 semester** **Journal review / journal summary**		
				TM = 2 X 2 X 50 minute **BT = 2 X2 X 60 minute** **BM =2 X 2 X 60 minute**			
2.	The students were able to determine the classification of agroforestry based on their components in the ecosystem as well as the pattern of the combination of the component in the agroforestry system	The ability to determine the component of agroforestry and their relationship with the classification and component combinations on agroforestry The practices report contains (a) the result of field observation (b) discussion of the observation results (c)	**Non test** **1. Assignment collection** The student's ability to deliver the results of their discussion related to the classification of agroforestry in an official report **2. Practical report (Group)** Practises report and diagram book of	**Internet** (Browsing, description)	presentation/video / learning material about the component agroforestry, agroforestry classification and the combination of agroforestry component Forming a group discussion for all students Make a summary of the learning	**1. AA n Introductio n to Agroforest ry**	5%

		book diagram of component agroforestry systems	component agroforestry systems		materials and the article		
		The report must be arranged properly, coherent, and clearly according to the practical guidelines		**Courses** **Practices** **TM = 2x 50** **2 X 1 X 100** **BT =2 X 60.** **3 X 2 X 1 X 70** **BM = 2 X60**			
3	The students were able to analyze and explain about agroforestry system (complex agroforestry and simple agroforestry and their management practices	The ability to differentiate the differentiation between complex agroforestry and simple agroforestry, analyze the agroforestry systems component as well as their management practices The practices report contains (a) the result of field observation (b) discussion of the observation results (c) book collection of agroforestry systems The report must be arranged properly, coherent, and clearly according to the practical guidelines	**Non test** **Practises Report (Group)** **1.** Students' ability in delivering their observations, analyze the types of agroforestry based on their component, literature study **2.** Practises report and collection book of agroforestry systems		Presentation/vide o/ learning material about the types of agroforestry systems Forming a group discussion for all students Make a summary of the learning materials and the article	**1. AA n Introductio n of Agroforest ry**	**10 %**
				Couse **Practices** **TM = 2 x2x 50** **3 X 2 X 1 X 100** **BT =2 X 60.** **3 X 2 X 1 X 70** **BM = 2 X60**			
4.	The students were able to explain and analyze the tree-soil-crop interaction;	The student's ability to explain and analyze:	**Non test** **Individual Assignment (Literature review)**	**Internet**	1.Presentation/vid eo/ learning material about	Tree-Crop Interactions : A	**10 %**

	especially from the light uses, water, and nutrient (roots)	how is the interaction of tree-soil-crop in using light, water, and nutrients. How is the tree-crop competition to get light, water, and nutrients How to design a tree-crop position to avoid or minimize the competition	The students take one sample of agroforestry systems from the literature, then they analyze and describe the light uses, as well as water and nutrient on these systems	**E-learning: Reading the module, literature, and the lecture learning materials**	the tree-soil-crop interaction and their effect on light, water, and nutrient 2. Forming a group discussion for all students 3. Making a summary of the learning materials and the article	Physiological Approach	
				Course **Practices** **TM = 2 x2x 50** **3 X 2 X 1 X 100** **BT =2 X 60.** **3 X 2 X 1 X 70** **BM = 2 X60**			
5.	The students were able to explain the advantage of implementing the local wisdom on agroforestry in maintain and developing sustainable agriculture, especially on lowland agriculture	The students ability to explain, summarize, and review how to implement agroforestry based on local wisdom in lowland area This activity conducted by reviewing some journal with related issue	**Non test** **Individual Assignment** The assignment (summary, review journal) must be related with these topics : a. The advantage of using agroforestry based on local wisdom in improving lowland agriculture b. How is agroforestry could enhance the sustainable agriculture	**Internet** **E-Learning : Reading the module, literature, and the lecture learning materials**	1. Presentation/vid eo/ learning material about the implementation the local wisdom on agroforestry to maintain and develop sustainable agriculture, especially on lowland agriculture	1. Agroforestry for Soil Conservation 2. Agroforestry for Soil Fertility	5%

			c. How to use local wisdom in agroforestry systems		2. Forming a group discussion for all students 3. Making a summary of the learning materials and the article		
				Course **TM = 2 x 50** **BT = 60** **BM =60**			
6.	The students were able to analyze all of the processes under the agroforestry system, and how is this process affect the soil organic matter and nutrient availability due to tree planting in the agroforestry system	The student's ability to explain, analyze, and review all of the processes under the agroforestry system. The students make a mindmap to describe and summarize: How is the process affect the soil organic matter How is the process affect the nutrient availability How is the process affect the microclimate and influence the process (a) and (b) through their effect on soil microorganisms	**Non test** **Individual Assignment** The assignment (summary, review journal) must be related to these topics: How is the process affect the soil organic matter How is the process affect the nutrient availability How is the process affect the microclimate and influence the process (a) and (b) through their effect on soil microorganisms	**Internet** **E-Learning :** **Reading the module, literature, and the lecture learning materials**	Presentation/Video/ learning material, (a) 1 How is the process affect the soil organic matter (b) How is the process affect the nutrient availability (c) How is the process affect the microclimate and influence the process (a) and (b)	- Agroforestry for Soil Fertility - Toward Integrated Natural Resource Management in Forest margins of the Humid Tropics: local action and global concerns	5%

		This activity was conducted by reviewing some journals with related issue			through their effect on soil microorganisms		
				 	 		
				TM = 2 X 50 menit **BT = 60 menit** **BM = 60 menit**			
7	The students were able to explain how agroforestry affects t the water balance	The student's ability to explain and analyze how agroforestry affects water balance; students also must be able to review an article related to topics. The students join in a group, discussed the topic, then reported and presented fluently	Oral presentation Presentation and group discussion. The presentation must be present clearly, fluently, and comprehensively in understanding the learning materials (water balance in agroforestry systems)	**Internet** **E-Learning : Reading the module, literature, and the lecture learning materials**	Presentation/Video / learning material, How is the water balance under agroforestry systems	1. Tree-Crop Interaction: A Physiological Approach 2. Agroforestry for Soil Conservation	20%
8	MIDDLE EVALUATION SEMESTER						
9	The students were able to characterize and analyze the agroforestry function, either their role in enhancing land productivity or their function in land protection	●The ability to summarize and write the agroforestry function : 1. The role of agroforestry in enhancing soil productivity 2. The role of agroforestry in protecting pests and diseases 3. Agroforestry and sustainable agriculture	**Non test** **Individual assignment:** **Characterizing and Analyzing the function of agroforestry :** 1. The role of agroforestry in enhancing soil productivity	**Internet** **E-learning : Reading the module, literature, and the lecture learning materials**	Presentation/video / learning material, What is the function of agroforestry systems The role of agroforestry in enhancing soil productivity	1. Tree-Crop Interactions : A Physiological Approach 2. Agroforestry for Soil Conservation	

			2. The role of agroforestry in protecting pests and diseases 3. Agroforestry and sustainable agriculture		The role of agroforestry in protecting pests and disease Agroforestry and sustainable agriculture	1. Agroforestry for Soil Fertility	
				TM = 2 X 50 minutes **BT = 60 minutes** **BM = 60 minutes**			
10	The students were able to explain the nutrient cycle model under the tree component (close nutrient cycle) and under the crop component (open nutrient cycle)	The student's ability to a) explain the nutrient cycle model under the tree component (close nutrient cycle) and under the crop component (open nutrient cycle) and b) determine the proper tree-crop combination to conserve the nutrient	**Non test** **Group assignment:** Presentation and group discussion. The presentation must be present clearly, fluently, and comprehensively in understanding the learning materials (closed and opened nutrient cycle)	**Internet** **E-Learning :** **Reading the module, literature, and the lecture learning materials**	Presentation/Video / learning material, a) the nutrient cycle model under the tree component (close nutrient cycle) and under the crop component (open nutrient cycle); and b) the proper tree-crop combination to conserve the nutrient	1. Tree-Crop Interactions: A Physiological Approach 2. Agroforestry for Soil Conservation 3. Agroforestry for Soil Fertility	
				Course　　　　**Practices** **TM = 2 x2x 50**　　**1 X 100** **BT =2 X 60.**　　**1 X 70** **BM = 2 X60**			

11	The students were able to understand related with the role of tree domestication in developing agroforestry, especially in tree productivity (CPMK 3,4) (PBL)	The student's ability to explain how tree domestication can develop tree productivity through agroforestry	**Non test** **Group assignment** (a) Presentation and group discussion. The presentation must be present clearly, fluently, and comprehensive in understanding the learning materials (tree domestication) (b) Journal resume	**Internet** **E-Learning : Reading the module, literature, and the lecture learning materials**	Presentation/Video / learning material, Tree domestication	1. Tree-Crop Interactions: A Physiological Approach 2.Agroforestry for Soil Conservation 3.Agroforestry for Soil Fertility
				Course Practices **TM = 2 x2x 50 2 X 2 X 1 X 100** **BT =2 X 60. 2 X 2 X 1 X 70** **BM = 2 X 60**		
12	The students were able to understand the role and function of agroforestry globally as well as landscape scale	The student's ability to describe the role and function of agroforestry globally and landscape scale	**Non test** **Group assignment** 1. Presentation and group discussion. The presentation must be present clearly, fluently, and comprehensively in understanding the learning materials (the role and function of agroforestry at a global scale) 2. Journal resume	**Internet** **E-Learning : Reading the module, literature, and the lecture learning materials**	Presentation/video / learning material, Agroforestry function at global and landscape scale	1. Tree-Crop Interactions: A Physiological Approach 2. Agroforestry for Soil Conservation 3. Agroforestry for

15

						Soil Fertility	
				Course **Practices** TM = 2 x2x 50 1 X 100 BT =2 X 60. 1 X 70 BM = 2 X60			
13	The students were able to apply the principle of management and development of agroforestry	The student's ability to design the appropriate agroforestry system by applying the proper tree and management of agroforestry The students must read some journals related to the topics and resume the article	**Non test** **Group assignment** 1. Presentation and group discussion. The presentation must be presented clearly, fluently, and comprehensively in understanding the learning materials (principle of management and development of agroforestry) 2. Journal resume	**Internet** **E-Learning :** **Reading the module, literature, and the lecture learning materials**	Presentation/Video/ learning material, the principle of management and development of agroforestry Project Base Learning: Designing the appropriate agroforestry to improve the soil productivity	1. Tree-crop Interaction: A Physiological Approach 2. Agroforestry for Soil Conservation 3. Agroforestry for Soil Fertility	

				Course **Practices**
				  TM = 2 x2x 50 1 X 100
				BT =2 X 60. 1 X 70
				  BM = 2 X60			

14	The students are aware and understand the concept of institutional and policy in developing agroforestry as well as the impact on the agroforestry development	The student's ability to explain how is the importance of institutional policy in developing agroforestry	**Non test** **Group assignment** 1. Presentation and group discussion. The presentation must be present clearly,	**Internet** **E-Learning :** **Reading the module, literature, and the lecture**	Presentation/Video/ learning material, the concept of institutional and policy in	1. Tree-crop Interaction: A Physiological Approach 2. Agroforestr	

		The students must read some journals related to the topics and resume the article	fluently, and comprehensively in understanding the learning materials (the concept of institutional and policy in developing agroforestry) 2. Journal resume	**learning materials**	developing agroforestry	y for Soil Conservation 3. Agroforestry for Soil Fertility	

				Course
				  TM = 2 x2x 50
				BT =2 X 60.
				  BM = 2 X60
					Practices
					  1 X 100
					  1 X 70		

15	The students can apply the agroforestry model in planning and designing the agroforestry system	The student's ability to demonstrate how to design and plan the agroforestry model	**Non test** **Group assignment** 1. Presentation and group discussion. The presentation must be present clearly, fluently, and comprehensively in understanding the learning materials (the WaNuLCAS model)	**Internet** **E-Learning : Reading the module, literature, and the lecture learning materials**	Presentation/Video/ learning material, the principle of management and development of agroforestry Project Base Learning : Designing the appropriate agroforestry using WaNuLCAS model	WaNuLCAS, Model Simulasi untuk Sistem Agroforestri	

				Course
				  TM = 2 x2x 50
				BT =2 X 60.
				  BM = 2 X60
					Practices
					  1 X 100
					  1 X 70		

16	**FINAL SEMESTER EVALUATION - WRITING TEST** **Evaluation of the learning outcome achievement**						15%
Total							

C. INDIKATOR PENCAPAIAN CPL PADA MK (*INDICATOR OF PLO ACHIEVEMENT CHARGED TO THE COURSE)*

INDIKATOR PENCAPAIAN CPL PADA MK
INDICATOR OF PLO ACHIEVEMENT CHARGED TO THE COURSE

CPL yang dibebankan pada MK / PLO charge to the course	CPMK / Course Learning Outcome (CLO)	Minggu ke- / Week	Bentuk Assessment / Form of Assessment	Bobot / Load (%)
CPL-04/PLO-04	CPMK 1/CLO 1	Week-8	Project Mid Exam	5
		Week-6	Taks 1	10
	CPMK 2/CLO 2	Week-8	Project Mid Exam	5
		Week-6	Taks 2	10
CPL-07/PLO-07	CPMK 3/CLO 3	Week-8	Project Mid Exam	10
		Week-10	Taks 2	10
	CPMK 4/CLO 4	Week-16	Final Project Exam	5
		Week-14	Final taks	20
CPL-09/PLO-09	CPMK 5/CLO 5	Week-16	Final Project Exam	25
				Total = 100%

No	Form of assessment	CPL 1	CPL 2	CPL 3	CPL 4	CPL 5	CPL 6	CPL 7	CPL 8	CPL 9	CPL 10	CPL 11	CPL 12	Total
1	Taks 1				0,10									0,10
2	Project Mid Exam				0,20			0,10						0,30
3	Taks 2							0,10						0,10
4	Final Taks							0,20						0,20
5	Project Final Exam							0,05		0,25				0,30
					0,30			0,45		0,25				1,00

ASSESSMENT AND EVALUATION

	ASSESSMENT AND EVALUATION UNDERGRADUATE PROGRAMME, AGROTECHNOLOGY, AGRICULTURE FACULTY		AP&E
	AGROFORESTRY		
			Edition :
Code :	Credit Unit (Course/Practises : (2/1)	Class of Course : soil Science	Semester :
Authorization	Author of AP&E	Coordinator of CCS	Coordinator of Study Program
	Dr. Ir. Rossyda Priyadarshini, MP		Dr. Ir. Bakti W.W

Task/ Weeks	Sub CP-MK (2)	Bentuk Asesmen (Penilain) (3)	Bobot(%) (4)
1	Capable in explaining the concept and principle of agroforestry which refers to sustainable agriculture principles, and is based on the local wisdom (CPL -S1)	**Assignment 1:** **Test** describing accurately and correctly related with: the agroforestry concept; the criteria of agroforestry how is agroforestry has been formed and developed The advantage of agroforestry implementation, as well as the constraint and challenge of agroforestry development	**25%**
2	capable in managing and developing marginal land through implementing appropriate agroforestry concepts to get the healthy and productive land	**Assignment 2** **Non test** Presentation and group discussion. (closed and opened nutrient cycle)	**5%**
3	Capable to plan, design the agroforestry concept on each type of land use to maintain and increase the productive land,(CPL-S2, CPL-KK4 ,)	**Assignment 3** The students take one sample of agroforestry systems from the literature, then they analyze and describe the light uses, as well as water and nutrient on this systems	**25%**
4	capable to describe the role and function of agroforestry on nutrient and water cycle; carbon cycle, as well as their role in controlling pest and disease	**Assignment 4** Project Base Learning : Presentation and group discussion The principal of management and development of agroforestry	**20%**
5	capable in understanding the interaction of agroforestry component; the processes affected, and use this knowledge to plan,	**Assignment 5** The assignment (summary, review journal) must be related to these topics: How is the process affect the soil organic matter	**25%**

design, and manage the unsustainable land unproductive land	How is the process affect the nutrient availability How is the process affect the micro –climate and influence the process (a) and (b) through their affect on soil microorganisms	

RUBRIC OF ORAL ANSWERED – ASSIGNMENT PRESENTATION

RUBRIC ARGUMEN

GRADE	SCORE	PERFORMANCE INDICATOR
More Less	*<41*	*The argument*
		• does not make sense and
		• there is no logical relationship
Less	*41–55*	*The argument is*
		- quite logical, but
		- it doesn't make sense
Enough	*56– 70*	*The argument:*
		Logical argument,
		Logical argument,
		reasonable, but
		less innovative
Good	*71- 85*	*rgument:*
		Logical argument,
		reasonable, and
		innovative
Very Good (Excellent)		*The argument:*
		Logical argument,
		innovative and
		can be easily implemented in the real world

RUBRIC – ASSESSMENT LEARNING OUTCOME -7 – THE ABILITY TO COOPERATE WITH THE TEAM

ASSESSMENT OF THE TEAMWORK

Peer name be assessed							
NPM – peer be assessed							

No	*Aspect to be assessed*	1	2	3	4	5	6	Score in Numbers (50-100)
1	Teamwork towards Learning Outcome (LO) achievement							
2	Showing the interpersonal skill effectively							
3	Very active in participating on group discussion							
4	Sharing of learning material and resources to all members on group							
5	Willing to find new information for their group							
6	Providing constructive feedback and solutions for any problems and difficulties							
7	Working hard for the group interest							
8	Willingness to get the feedback patiently							
9	Willingnes to think positively on critical feedback							
10	Managing emotional well							
11	Stick to his/her point of view							
12	Improving his/her behavior and cooperation in doing teamwork							
13	Open minded for the new information							
14	Actively participate and present on time in all team activities							
15	Responsible and committed							
16	Honest							

1 = *very bad / very non-constructive*

6 = *very good / very constructive*

ANSWER RUBRIC WRITING AN ARTICLE 7

Current Event Article Summary Grading Rubric

CATEGORY	4 - Above Standards	3 - Meets Standards	2 - Approaching Standards	1 - Below Standards
Introduction	The introduction has a strong hook or attention. This could be a strong concept sentence, a relevant quotation, statistic, or question addressed to the reader.	The introduction has a hook or attention grabber. Includes a good concept sentence and/or interesting quote.	The author has a weak introductory paragraph, the connection to the topic is not clear. Paragraph includes a weak concept sentence or quote.	The introductory paragraph is not interesting AND is not relevant to the topic. No concept sentence or quote.
Quotes and Concept Words	All of the examples are specific, relevant and full explanations are given.	Most of the evidence and examples are specific, relevant and explanations are given.	Some of the pieces of evidence and examples are relevant and include an explanation.	Evidence and examples are NOT relevant AND/OR most are not explained.
5 W's	All supportive facts and statistics are reported accurately. Article is fully explained and summarized in own words.	Almost all supportive facts and statistics are reported accurately. Article is mostly explained and summarized in own words.	Some supportive facts and statistics are reported accurately. Weak explanation and summary that is partially plagiarized.	Most supportive facts and statistics were inaccurately reported. Article is poorly explained and summary is mostly plagiarized.
Grammar & Spelling	Author makes no errors in grammar, sentence structure, or spelling that distract the reader from the content.	Author makes 1-3 errors in grammar, sentence structure, or spelling that distract the reader from the content.	Author makes 4-6 errors in grammar, sentence structure, or spelling that distract the reader from the content.	Author makes more than 6 errors in grammar, sentence structure, or spelling that distract the reader from the content.
Conclusion	The conclusion is strong and leaves the reader solidly understanding the writer's response and personal reaction to the article.	The conclusion is good. Includes the author's response and personal reaction to the article.	Conclusion is weak or incomplete. Limited response and personal reaction to the article.	There is no conclusion - the paper just ends.
Proper Format and Organization	Article summary is typed, has a heading, title, and is submitted on time. Summary is organized into 4 or more paragraphs. A challenging newspaper article of sufficient length is attached.	Article summary is typed, has a heading, title, and is submitted on time. Summary is organized into 4 paragraphs. Acceptable newspaper article of sufficient length is attached.	Article summary is typed but submitted late. Incomplete heading and title. Summary has 3 or less paragraphs. Attached item is not a current event newspaper article and/or it is not a sufficient length.	Article summary is not typed. No heading. No article is attached. No title.

Record of Assesment

Name of Students	Task 1	Mid Exam Project	Task 2	Project Final Exam	Final Task
NATASYA RAHMADANI	100	80	80	79	81
GALUH TSANI SANJAYA HABIB	80	77	80	81	83
ADHIS HAIFA LESTARI JE MUSRON	65	80	70	80	80
RISKA WIDIYA PUTERI	70	78	80	81	83
RAYHANA CHESSA MAHARANI	60	78	70	77	80
ALFANI AHSANUL ILMI	80	78	80	77	80
WAHYU MUKTI JAYA NATA	100	75	80	81	80
ANIVEA FACHMI NUR FITRI	100	78	85	79	81
AMZI OLA AL VIOMITHA	70	78	70	77	80
AMANDO MAULANA	55	78	70	81	83
ATHA FADHILAH	85	77	70	81	83
FALIH WICAKSONO	30	80	85	80	80
RAMADHANTI CHOIRUNNISA	90	77	70	80	80
RICO WIDI TARUNA NUGROHO	60	85	90	82	80
AMELIA BUDI FEBRIANI	100	80	70	80	80
FAHMI ANNAUFAL ABDILLAH	95	78	70	79	81
ANNIDA NUR RIFATUS SHOLIKHA	100	80	70	80	80
MUHAMMAD FAHRI RIZALDI	50	78	85	77	80
DIMAS SAMUDRA EFENDY	30	77	70	79	81
SHAULA NUR ZAHRO	70	78	70	81	80
DINA PUSPITASARI	90	76	80	80	80
SHINTA ANUGERAH RAHMAWATI	60	77	70	81	80
NILNA BAROROH	90	80	70	81	80
BALQIS GHAITZA ZAHRO	100	80	70	81	80
GALUH INTAN PERMATASARI	100	80	70	79	80
ARIESKA WAHYU ALPRILIA	90	81	70	80	80

Example of Student Assesment

Anggota Kelompok 2:

1. Natasya Rahmadani (20025010165)
2. Anivea Fachmi Nur Fitri (20025010175)
3. Fahmi Annaufal A. (20025010188)
4. Dimas Samudra E. (20025010192)

I. Identifikasi kondisi lingkungan dan SDM

No.	Judul	Uraian
1.		Sistem agroforestry yang dilakukan di Dusun Berjo, Desa Sumbersari, kecamatan Sambeng, Kabupaten Lamongan.
2.	Ringkasan	Sistem agroforestry yang dikelola dengan alami dan juga dengan baik sehingga menghasilkan suatu kombinasi yang saling berkesinambungan untuk system pertanian berkelanjutan.
3.	Skala	Pertanian Perseorangan
4.	Lokasi	Dusun Berjo, Desa Sumbersari,

No.	Judul	Uraian
1.	Skala	Rumah tangga
2.	Lokasi	Ds. Sukosari, Kec. Trawas, Kab. Mojokerto 7° 38′ 28″ S, 112° 34′ 43″
3.	Iklim	Suhu 21°C dan rata-rata curah hujan 294 mm
4.	Elevasi	600 mdpl
5.	Lansekap	Silvopastura
6.	Jenis Tanah	Andosol
7.	Macam kawasan	
8.	Penduduk dan sosekbud	Rumah penduduk di sekitar lahan jarang sehingga penduduk juga jarang

Kelompok 6

Wahyu Muktu Jaya Nata (20025010174)
Shaula Nur Zahro (20025010195)
Shinta Anugerah Rahmawati (20025010198)
Nina Baroroh (20025010199)

Agroforestri E

No.	Judul	Uraian
1.	Bentuk agroforestri	Silvopastura
2.	Sistem agroforestri	Agroforestri kompleks
3.	Subsistem agroforestri	Penggembalaan dalam perkebunan
4.	Contoh	Kombinasi tanaman berkayu dengan peternakan ayam
5.	Komponen	Tanaman berkayu (mahoni, durian, petai cina, petai) dan ayam
6.	Pola kombinasi • Waktu	

Detail Tugas :
https://drive.google.com/drive/folders/1lNaJm6rOy41loI2ss7rJqUbnoa6aTuZ5?usp=drive_link