	NUSA CENDANA UNIVERSITY							
A BANK		FACUL	TY OF ANIMAL HUS	BAND	RY, MARINE A	AND FISHERI	ES	
	S1 AQUACULTURE							
I			SEMESTER LEARN	ING PI	LAN (RPS)			
COURSES (MI	K)	MK CODE	THE MK CLUSTER		WEIGHT	Г (credits)	SEMESTER	Date of
Basics of Enviro Analysis (EIA) Busi	onmental Impact of Aquaculture iness	t PPBDP16340 Elective Courses PS Expertise Theory = 2 Practice = 1 5&6 Jav		January 3, 2025				
RPS Developer RMK Coordinator Study Pro		Study Program	n Coordinator					
	Jusuf Manilarai SP M Ling Dr Franchy Ch Liufeto S Pi M Si Prof DI Yuliana Sal		una Salosso, S.Pi,MP					
Achievements	CPL-Study I	Program Charged to the	Constitutional Court	/				
Learning	CPL3	Graduates must posses	ss the necessary skills to ma	anage da	ta, convey informat	tion in the field of	f aquaculture, and provide	
(CP)		alternative solutions w	hen required plication of aq	luacultur	e			
	CPL6	Graduates should be a	ble to apply science and tec	hnology	to enhance produc	tivity in aquacultu	ire	
	CPL7	Graduates should be a choosing various altern	ble to identify, analyze, eva native solutions based on so	luate an	d interpret problem	s in the field of aq	uaculture and pr	ovide guidance in
	Course Lear	ming Outcomes (CLO)						
	CLO1	Understand the basic co	ncepts, regulations, and role	e of AM	DAL in aquacultur	e sustainability (P	LO3)	
	CLO2	Identify and apply envir	onmental impact analysis n	nethods	in aquaculture activ	vities (PLO6)		
	CLO3	Evaluate the environme	ntal impact of aquaculture a	and desig	gn mitigation strate	gies based on sust	ainability princip	oles
	CLO4	Prepare AMDAL docum	nents and post-AMDAL mo	onitoring	systems for aquact	ulture businesses ((PLO6&7)	
	Final Ability	of each learning stage (S	Sub-CLO)					
	Sub-CLO1	Explain the definition,	purpose, and scope of AM	DAL in	the context of aqua	culture		
	Sub-CLO2	Outline national or int	ernational EIA regulations	relevant	to aquaculture busi	nesses		
	Sub-CLO3	Identify the environme	ental components (physical,	, chemic	al, biological, socia	l) affected by aqu	aculture	

	Sub-CLO4	Applying envi studies	ironmental imp	pact analysis m	ethods (Leopold	l matrix (2-dime	nsional table), cl	ble), check-list) to aquaculture case					
Sub-CLO5 Evaluate the positive and negative impacts of aquad					of aquaculture a	aquaculture activities on the environment							
	Sub-CLO6 Designing recommendations for environmental impact mitigation (waste management, habitat restoration) based of						sed on						
		AMDAL studi	ies		. 1 T . A	1 • > C	1. 1 *						
	Sub-CLO/	Compiling rel	<u>lable documen</u>	its (Environmei	ntal Impact Ana	lysis) for aquacu	ilture businesses						
	Sub-CLO8	Designing a p	ost-AMDAL r	nonitoring syste	em (RKL-RPL)	to ensure enviro	onmental complia	ance					
	Correlation o	of Sub-CLO to C	CLO and CPL										
		CLO	<u>D-1</u>		CLO-2	1	CL	.O-3	CLO-4				
		Sub-CLO1	Sub-CLO2	Sub-CLO3	Sub-CLO4	Sub-CLO5	Sub-CLO6	Sub-CLO7	Sub-CLO8				
	CPL-3	N	N	1			1	· · · · ·					
	CPL-6			N	N		N	N	V				
Priof Decorintion of	CPL-/	licouccos basia a		v v	V logics and ann	lightions of AM	DAL in the con	toxt of aquapultur	V v husingge Studente ere				
MK	expected to 1 management	learn how to ide and monitoring	entify, analyze plans	e, and evaluate	the environme	intal impacts of	aquaculture act	tivities, as well as	s design environmental				
Study Materials /	1. B	asic concept and	l scope of AMI	DAL									
Learning Materials	2. N	ational and inter	national EIA r	egulations			• • • •						
	3. E	nvironmental co	onmental components attected by aquaculture (physical, chemical, biological, social)										
	4. Environmental impact analysis methods (Leopold Matrix, Check-list, etc.)												
	5. I 6 F	nvironmental im	negative impac	n strategies in a	auaculture								
	7. P	reparation of AN	IDAL docume	ents (Andal, RK	L. RPL)								
	8. C	ase studies of Al	MDAL on diff	erent types of a	quaculture busi	nesses							
Book	MAIN:												

		 Law No Governi Pearl, P Supriha 	. 32 of 2009 concerning Environment Regulation No. 22 of 202 S. (n.d.). Environmental Imparyono. 2022. Fundamentals of	onmental Protection and Ma 1 concerning the Implemen act Analysis EIA: Ecosystem Impacts of	nagement. tation of Environmental Protec Fishery Resources. Plantaxia:	ction and Managemer Yogyakarta	nt.	
 Glasson, J., Therivel, R., & Chadwick, A. (2012). Introduction to environmental impact assessment. Routledge. Morris, P., & Therivel, R. (2009). Methods of environmental impact assessment. Routledge. 								
SUPPORTER:								
		1. Regu conc	llation of the Minister of Enverning Business Plans and/or A	vironment and Forestry of Activities That Must Have a	the Republic of Indonesia Nu n Environmental Impact Analy	mber: P.38/MENLF /sis	IK/SETJEN/KUM.1/	/7/2019
Learning	g Media	SOFTWAR	E:		HARDWARE:			
		SIADIKNON	NA, Microsoft Office		Laptop, LCD, Projecto	r		
Lecturer		1. Dr. Fra 2. Jusuf N	nchy Ch. Liufeto, S.Pi, M.Si Ianilapai, SP.,M.Ling					
Required	l Courses	-						
Learning	g Plan							
					Forms of Learning; Lea	arning Methods;	Study Materials /	Ratin
N	Sub-CL	O (as the	Valua	ation	Assignme	nt;	Learning	g
Mg Ke-	expected fi	nal ability)			[Estimated]	[ime]	Materials	Weig
			Indicator	Criteria & Form	Luring (Offline)	Online (Online)	[Library]	ht(%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1			1.1 Accuracy explains the	Kriteria:	Reading	Link:	Definition of	5
			basic concept of the EIA	Headline Holistic	• Discovery learning	 Siadiknona 	AMDAL	
	Sub-CLO-1	l: Explain	1.2 Accuracy explains the	Non-test techniques:	• Discussion	https://siadikno	, Objectives of	
	the basic co	oncept and	scope of the EIA	• Summarize	[TM: 1x(3x50'')]	na.undana.ac.id	AMDAL, Scope of	
	scope of Al	MDAL	1.3 Accuracy explains the		Task 1: Create a summary	<u>/</u>	AMDAL (physical,	
	and its deve	elopment	history of AMDAL		of the basic concepts,		chemical,	
	history		development		scope, and history of		biological, social,	
					AMDAL development		economic aspects),	
					[PT+BM(1+1)x(3x60'')]		History and	

						development of	
						AMDAL in	
						Indonesia and	
						internationally and	
						Basic principles of	
						AMDAL	
2		2.1 Accuracy of identifying	Kriteria:	• Reading	Link:	Procedures and	5
		national EIA regulations	Headline Holistic	• Discovery learning	 Siadiknona 	stages of the	
	Sub CLO 2. Outlining	2.2 Accuracy of identifying	Non-test techniques:	• Discussion	https://siadikno	AMDAL process	
	Sub-CLO-2: Outining	international AMDAL	• Summarize	[TM: 1x(3x50'')]	na.undana.ac.id	in Indonesia and	
	internetional ELA	regulations	• Quiz 1	Task 2: Make a summary	<u>/</u>	the Relationship of	
		2.3 Accuracy explains the	-	of the types of pollutants		AMDAL	
	regulations relevant to	relevance of regulations		and sources of pollutants		regulations with	
	aquaculture businesses	to aquaculture businesses		[PT+BM (1+1)x(3x60'')]		aquaculture	
						business licensing	
3		3.1 Precisely identify the	Kriteria:	• Reading	Link:	Components of	5
		components of the	Headline Holistic	• Discovery learning	 Siadiknona 	the physical,	
		physical environment	Non-test techniques:	• Discussion	https://siadikno	chemical,	
	Sub-CLO-3: Identify	3.2 Accurately identify	• Create a paper	[TM: 1x(3x50")]	na.undana.ac.id	biological	
	environmental	components of the		Task 3: Write a paper on	<u>/</u>	environment and	
	components (physical,	chemical and biological		the environmental		Social	
		-					
	chemical, biological,	environment		components affected by		environmental	
	chemical, biological, social) affected by	environment 3.3 Precisely identify the		components affected by aquaculture activities		environmental components and	
	chemical, biological, social) affected by aquaculture activities	environment 3.3 Precisely identify the components of the social		components affected by aquaculture activities [PT+BM(1+1)x(3x60'')]		environmental components and Interactions	
	chemical, biological, social) affected by aquaculture activities	environment 3.3 Precisely identify the components of the social environment		components affected by aquaculture activities [PT+BM(1+1)x(3x60'')]		environmental components and Interactions between	
	chemical, biological, social) affected by aquaculture activities	environment 3.3 Precisely identify the components of the social environment		components affected by aquaculture activities [PT+BM(1+1)x(3x60'')]		environmental components and Interactions between environmental	
	chemical, biological, social) affected by aquaculture activities	environment 3.3 Precisely identify the components of the social environment		components affected by aquaculture activities [PT+BM(1+1)x(3x60'')]		environmental components and Interactions between environmental components	
4	chemical, biological, social) affected by aquaculture activities Sub-CLO-4: Applying	environment 3.3 Precisely identify the components of the social environment 4.1 Precision applying the	Kriteria:	<pre>components affected by aquaculture activities [PT+BM(1+1)x(3x60'')] • Reading</pre>	Link:	environmental components and Interactions between environmental components Types of	5

	impact analysis method (Leopold Matrix, Check-list) to aquaculture case studies	4.2 Precision in implementing Check-lists4.3 Precision of analyzing environmental impacts using such methods	Non-test techniques: • Create a paper • Quiz 2	• Discussion [TM: 1x(3x50")] Assignment 4: Prepare a paper on the application of environmental impact analysis methods to aquaculture case studies [PT+BM(1+1)x(3x60")]	• Siadiknona https://siadikno na.undana.ac.id /	Impact Analysis Methods and Case Studies of the Application of Impact Analysis Methods to Various Types of Aquaculture	
 5,6,7	Sub-CLO-5: Evaluate the positive and negative impacts of aquaculture activities on the environment	 5.1 Precision evaluates positive impact 5.2 Accuracy of evaluating negative impacts 5.3 Accuracy provides examples of impacts on different types of aquaculture 	Kriteria: Headline Holistic Non-test techniques: • Writing of work (Practicum Report)	 Reading Collaborative Learning atau Project Based Learning Discussion [TM: 1x3x(3x50")] Task 5: Conduct case studies on the positive and negative impacts of aquaculture activities on the environment and prepare reports [PT+BM(1+1)x3x(3x60")] 	Link: • Siadiknona <u>https://siadikno</u> <u>na.undana.ac.id</u> <u>/</u>	Businesses Positive and negative impacts of aquaculture and Evaluation of impacts at various scales (local, regional, global as well as Environmental risk analysis in aquaculture activities	25
8			MIDTERM	EXAM			
9	Sub-CLO-6: Designing recommendations for environmental impact mitigation (waste management, habitat	 6.1 Precision in designing waste management mitigation recommendations 6.2 Precision designing habitat restoration 	Kriteria: Headline Holistic Non-test techniques: • Create a video • Quiz 3	 Reading Discovery learning Discussion [TM: 1x(3x50")] Task 6: Make a proposal 	Link: • Siadiknona <u>https://siadikno</u> <u>na.undana.ac.id</u> <u>/</u>	The concept of environmental impact mitigation, Aquaculture waste	10
				for environmental impact		management	1

	restoration) based on	mitigation		mitigation		strategies and	
	AMDAL studies	recommendations		recommendations for an		techniques, and	
		6.3 Conformity of		aquaculture business		Approach to	
		recommendations with		[PT+BM(1+1)x(3x60")]		environmentally	
		AMDAL studies				friendly	
						technology in	
						aquaculture as	
						well as the	
						preparation of	
						impact mitigation	
						plans in the EIA	
						document	
10,11	Sub-CLO-7:	7.1 Reliable document	Kriteria:	• Reading	Link:	Components of	15
	Compiling AMDAL	compilation accuracy	Headline Holistic	 Project Based Learning 	 Siadiknona 	reliable	
	documents (Andal,	7.2 Accuracy in compiling	Non-test techniques:	Discussion	https://siadikno	documents,	
	RKL, RPL) for	RKL documents	• Writing of work or	[TM: 1x2x(3x50")]	<u>na.undana.ac.id</u>	reliable	
	aquaculture businesses	7.3 Accuracy in drafting RPL	projects	Task 7: Draft an EIA	<u>/</u>	preparation	
		documents		document for an		methodologies,	
				aquaculture business		techniques for	
				[PT+BM(1+1)x2x(3x60'')]		collecting and	
						analyzing	
						environmental	
						data,	
						Forecasting of	
						environmental	
						impacts and	
						Presentation of	
						information in	
						reliable	
						documents	

Designing a post- AMDAL monitoring system (RKL-RPL) to ensure environmental compliancewater pollution case studiesHeadline Holistic Non-test techniques: • Quiz 4• Case study • Discussion [TM: 1x2x(3x50'')]• Siadiknona https://siadikno (Environment Managemen (Environment Managemen reports and recommendations for solutions and• Case study • Discussion• Siadiknona https://siadiknoRKLUse of the studies8.2 Accuracy provides solution recommendations• Quiz 4• Case study • Discussion• Managemen reports and reports and recommendations for solutions related to water• Discussion• Managemen ma.undana.ac.id (Environmen Monitoring Plan) Purpo	ntal : PL ntal
AMDAL monitoring system (RKL-RPL) to ensure environmental compliancestudiesNon-test techniques: • Quiz 4• Discussion ITM: 1x2x(3x50")]https://siadikno na.undana.ac.id(Environmental Managemen /Compliancesolution recommendations• Ouiz 4ITM: 1x2x(3x50")]na.undana.ac.id 	ntal t PL ıtal
system (RKL-RPL) to ensure environmental compliance 8.2 Accuracy provides solution • Quiz 4 [TM: 1x2x(3x50'')] na.undana.ac.id Managemen recommendations recommendations recommendations Imagemen Imagemen	t PL ıtal
ensure environmental compliance solution Task 8: Create case study / Plan) and River 8.3 Accuracy bases 8.3 Accuracy bases recommendations for Monitoring evaluations and solutions related to water Plan) Purpo	PL 1tal
compliancerecommendationsreports and(Environmendations8.3 Accuracy basesrecommendations forMonitoringevaluations andsolutions related to waterPlan) Purpo	ıtal
8.3 Accuracy bases recommendations for Monitoring evaluations and solutions related to water Plan). Purpo	
evaluations and solutions related to water Plan) Purpo	
solutions related to water range	se
recommendations on pollution and function	of
scientific analysis [PT+BM(1+1)x2x(3x60'')] RKL-RPL,	
8.4 Precision bases Environmen	al
evaluations and monitoring	
recommendations on parameters,	
sustainability principles environment	al
monitoring	
methods and	
reporting and	1
evaluation	
system for the	ıe
implementat	on
of RKL-RPI	,
14,15Practicum on the1. Identify theKriteria:• ReadingLink:Practicum on	ı 15
Application ofenvironmental impact ofHeadline Holistic• Project Based Learning• Siadiknonathe Applicat	on
AMDAL inaquaculture venturesNon-test techniques:• Discussionhttps://siadiknoof AMDAL	in
Aquaculture Business2. Analyze environmental• Writing of work[TM: 2x(3x50'')]na.undana.ac.idAquaculture	
data and information(Practicum Report)Task 9: Carry out the/Business	
3. Develop environmental practicum and compile a	
management and report	
monitoring plans [PT+BM(1+1)x2x(3x60'')	
16 FINAL SEMESTER EXAMS	

FORMAT OF THE LESSON PLAN AND EVALUATION OF THE COURSE "WATER POLLUTION MANAGEMENT"

1. LESSON PLAN FORMAT

NO	MEETING	MATERIAL (ID)	MATERIAL
1	1	Basic concept and scope of AMDAL	Basic concepts and scope of AMDAL
2	2	EIA regulations related to AMDAL aquaculture business	Regulations related to aquaculture business
3	3	Environmental components affected by aquaculture (physical, chemical, biological)	Environmental components affected by aquaculture (physical, chemical, biological)
4	4	Environmental impact analysis methods (e.g., Leopold Matrix Check-list)	Environmental impact analysis methods (e.g., Leopold Matrix, Check-list)
5	5, 6, 7	Identify the important impact of aquaculture activities	Identification of significant impacts of aquaculture activities
6	8	Mid-Semester Exam	Midterm Exam
7	9	Environmental Management Plan (RKL) in aquaculture business	Environmental Management Plan (RKL) in aquaculture business
8	10, 11	Environmental Monitoring Plan (RPL) on aquaculture business	Environmental Monitoring Plan (RPL) in aquaculture business
9	12, 13	Case studies of AMDAL on different types of aquaculture businesses	AMDAL case studies in various types of aquaculture business
10	14, 15	Preparation of AMDAL documents (Andal, RKL, RPL)	Preparation of AMDAL documents (Andal, RKL, RPL)
11	16	Final Semester Exam	Final Exam

2. EVALUATION PLAN FORMAT

NO	EVALUATION BASIS	WEIGHT (%)	EVALUATION COMPONENTS	DESCRIPTION INDONESIAN LANGUAGE	DESCRIPTION ENGLISH
1	Participatory activities	25	Discussion	Discussion of each topic	Discussion every topic
2	Project results	25	Aquascope Project	Design, layout, natural, ecology, health, hygiene and creativity	Design, layout, nature, ecology, health, cleanliness and creativity
3	Cognitive/Knowledge	10	Assignment	Tasks 1 – 9 in RPS	Assignment 1 – 9 from Basic Course Outline
		10	Quiz	Quiz on topic	Quiz on topic

15	Mid-Semester Exam	Questions based on Sub-CLO indicators 1	Test items are based on
		- 5	indicators of learning objectives
			1 to 5
15	Final Semester Exam	Questions based on Sub-CLO indicators 6	Test items are based on
		- 8	indicators of learning objectives
			6 to 8