

University of Gadjah Mada

Faculty of Forestry Study Program of Doctor in Forestry Science **Module Handbook**

Name (Code)	: Intensive Silviculture of Tropical Forest (KTDS22804)							
ECTS Type Status	: 7.5 Class lecture Elective							
Semester OfL:OnL	: 1 60:40 elok.ugm.ac.id							
Ratio LMS								
Pre-Requisite	:-							
Description of	: The Tropical Forest Intensive Silviculture course raises the topic of the development of silvicultural systems							
content	in tropical countries in general and Indonesia in particular; compare the silvicultural system implemented in							
	Indonesia; the role of silviculturists in maintaining forest and environmental functions, identification of							
	intensive silvicultural components (tree breeding, environmental manipulation, integrated pest control) for							
	several types and forest habitats, and their application for sustainable management of natural forests and							
	plantations							
Course Outcomes	Finishing this course, student will be able to compare the development of silviculture system applications							
and PLO mandated	and its components in Indonesia related to forest management sustainably (CLO1/PLO3), to differentiate							
	the components of environmental manipulation aspects and their roles in intensive silviculture							
	(CLO3/PLO4), to select the component aspects of tree breeding and control integrated pests and their role							
	in intensive silviculture (CLO3/PLO4), and to develop silvicultural engineering designs for sustainable							
	management of tropical forests in Indonesia (CLO4/PLO7)							
Lecturer(s)	(s) 1. Prof. Dr. Ir. Mohammad Naiem, M.Agr.Sc 3. Dr. Ir. Eny Faridah, M.Sc. 2. Prof. Dr. Ir. Suryo Hardiwinoto, M.Agr.Sc 4. Prof. Dr. Ir. Sri Rahayu, MP							
Workload	: Total workload per semester is for 14 weeks, with weekly activities: 2*(50' lectures, 60' structured activities, 60' independent study), and 2 mid exam and final exam weeks.							tured
Learning Method	: Class Lecture and Discussion							
Student Learning	: Actively discuss the class material and research cases, structured assignment, group work, quiz,							
Experience	material reflection, review of literature and problem in forestry sectors							
Mapping CO-syllabus						Learning form		Meetings
	L. Development or silvicultural systems in indonesia Stand management and modulativity					class lecture		3
	2. Stand management and productivity							
	3. Agroundestry 3. A Climate zening babitat and limitations from the senant of growth							2
	2 4. Chinate zoning, nabilat and inflitations from the aspect of growth						discussion	
	6 tree breeding to increase the productivity of tropical natural forests							
	in Indonesia							
	3 7. Meranti silviculture 8. Teak and pine silviculture					Class lecture		4
						presentation		
	9. Principles of tropical forest protection in intensive silviculture							
	4 10. Forest regulation, sustainable forest management, forest and community Class lecture, discussion, 4						Class lecture. 4	
	11. Manipulation of growth in various forest habitat typologies assignment							
	12. Land and forest rehabilitation							
Assessment method	Base of Evaluation	Component of Evaluation		CLO1	CLO2	CLO3	CLO4	Total (%)
	Participative activity	Assignment, quiz, presentation					\checkmark	20
	Cognitive &	Mid exam		\checkmark				40
	Psychomotoric							
	Case Study result	Final exam/Presentation						40
References	nces 1. Nyland RD. 2002. Silviculture: Concept and Application. 2nd edition. McGraw Hill. 628p. McEvoy							Evoy TJ.
	2014. Introduction to Forest Ecology and Silviculture. 3rd edition. Forestry Press. 180p.							
	2. Smallwood MF, Calvert CM, & Bowles DJ (eds). 1999. Plant Responses to Environmental Stress. Oxford,							ess. Oxford,
	BIOS-Scientific Publisher Ltd Kramer PJ & Kozlowski TT. 1979. Physiology of Woody Plants. Academic							
	Press. 811p. 3. Wainhouse D. 2005. Ecological Methods in Forest Pest Management. Oxford UP. 225p							
	4. Zobel B & Talbe	4. Zobel B & Talbert B. 2003. Applied Forest Tree Improvement. Blackburn Press. 505p						