

Module/Course Description

Forest Opening Up (MNH 332)

A. Module Identity		
1.	Name	Forest Opening Up
2.	Code	MNH 332
3.	Credit	3 (2-3)
4.	Semester	6 (Even)
5.	Pre-requisite	Forest Harvesting (MNH 331)
6.	Coordinator	Dr. Ir. Ahmad Budiaman, M.Sc. Forst.Trop
7.	Lecturers	1. Dr. Ir. Ahmad Budiaman, M.Sc. Forst.Trop 2. Prof. Dr. Ir. Elias 3. Dr. Ujang Suwarna, S.Hut, M.Sc
8.	Language	Indonesian
9.	Program(s) in which the course is offered	Internal department: Forest Management Study Program Other departments: all study programs in IPB University as election course
10.	Type of teaching	a. Traditional classroom: 100 % b. Blended system: Traditional classroom....%, Online....% c. e-Learning system:% d. Others:%

B. Workload of course components (total contact hours and credits per semester)								
Credit		Contact Hours**				Self-Study	Other	Total
SKS *)	ECTS	Lecture	Class Exercise	Laboratory	Field Practice			
3		28	42			56		126

*) Semester credit unit according to the Indonesian higher educational system

1 credit unit lecture = 2 hours/ week for lecture and 2 hours/ week for self-study within 14 weeks/ semester

1 credit unit class exercise or laboratory or field practice = 3 hours/week within 12-14 weeks/semester

***) 1 hour for lecture= 50 minutes; 1 hour for class exercise or laboratory or field practice = 60 minutes

C. Module Objective (Learning Outcomes)
After attending this course, students are able to explain the philosophy of forest opening up, the principles of effective, efficient, and environmentally friendly forest opening up planning, the stages of planning for forest areas, as well as making the plans and assessments of forest opening up.

D. Detailed Course Learning Outcomes (LO) in Relation to Learning Domains, Teaching Strategies, and Assignment Methods			
No.	LO in Learning Domains	Teaching Strategies	Assessment Methods
a.	Knowledge		
1.	Students are able to understand the rules of lectures and explain the scope of forest opening up	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test), evaluation the activeness in question and answer
2.	Students are able to explain the relationship among forest management	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test),

	plans, forest opening up, forest management, timber harvesting systems, and forest planning.		evaluation the activeness in question and answer
3.	Students are able to explain the terms of accessibility, field classification, field classification methods.	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test), evaluation the activeness in question and answer
4.	Students are able to explain the classification of forest opening up infrastructure, types of roads and forest road networks.	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test), evaluation the activeness in question and answer
5.	Students are able to explain and measure the technical standard of forest opening up facilities and infrastructure.	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test), evaluation the activeness in question and answer
6.	Students are able to explain the models of forest opening up and the characteristics of each model	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test), evaluation the activeness in question and answer
7.	Students are able to explain the stages of forest opening up planning and identify data and information for the planning	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (mid-semester test), evaluation the activeness in question and answer
8.	Students are able to explain the method of road trace planning	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question and answer
9.	Students are able to explain that the soil as material and the basis of building forest roads	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question and answer
10.	Students are able to explain the stages of making forest roads and structure of forest road construction	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question and answer
11.	Students are able to explain the interests and techniques of maintaining a forest road	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question and answer
12.	Students are able to explain the types of impacts caused by forest opening up activities and techniques to reduce its impact	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question and answer
13.	Students are able to explain and measure the parameters to assess forest opening up	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question and answer
14.	Students are able to explain and apply several decision making methods to choose an alternative of forest opening	<ul style="list-style-type: none"> • Presentation • Discussion 	Written test (semester test), evaluation the activeness in question

	up		and answer
b.	Skills		
1.	Students are able to make a model of clearing forest areas	<ul style="list-style-type: none"> • Presentation • Practicum • Group discussion 	Authentic assessment of the completeness and correctness in explanation, understanding, and analysis
2.	Students are able to make forest opening up planning, including road trace planning	<ul style="list-style-type: none"> • Presentation • Practicum • Group discussion 	Authentic assessment of the completeness and correctness in explanation, understanding, and analysis
3.	Students are able to measure parameters to assess the forest opening up	<ul style="list-style-type: none"> • Presentation • Practicum • Group discussion 	Authentic assessment of the completeness and correctness in explanation, understanding, and analysis
4.	Students are able to make decisions in choosing an alternative forest opening up	<ul style="list-style-type: none"> • Presentation • Practicum • Group discussion 	Authentic assessment of the completeness and correctness in explanation, understanding, and analysis
c.	Competences:		
1.	Students demonstrate a willingness to participate in the class activities	<ul style="list-style-type: none"> • Presentation • Discussion 	Authentic assessment
2.	Students are able to complete all tasks and participate in class discussion	<ul style="list-style-type: none"> • Presentation • Discussion 	Authentic assessment

E. Module Content		
List of Topic	Number of Weeks	Contact Hours
Lecture contract, definition and scope of forest opening up	1	2
Relationship among forest management plan of forest opening up, forest structuring, and timber harvesting systems	1	2
Field classification in the forestry sector	1	2
Classification of infrastructure and facilities in forest opening up	1	2
Infrastructure technical standards	1	2
Models of forest opening up	1	2
Plan of forest opening up	1	2
Method of road trace planning	1	2
Material and basis of forest building	1	2
Establishment of forest road	1	2
Maintenance of forest road	1	2
Impacts of forest opening up	1	2
Parameters of forest opening up	1	2
Methods for selecting alternative plan of forest opening up	1	2

F. Course Assessments			
No.	Assessment Type *)	Schedule (Week Due)	Proportion of the Final Mark
1.	Mid-Term Examination	The 8 th Week	35%

2.	Final Examination	The 16 th Week	35%
3.	Practical Report/ homework	Minimal 4 times in a semester	30%

**) Example: mid-term examination, final examination, quiz, homework, project, etc.*

G. Media Employed

Laptop, LCD, Microphone, White Board, Marker, Pointer

H. Learning Resources

h1. Textbooks:

1. Dietz P, Knigge W, Loeffler H. 1984. Walderschliessung. Paul Parey. Hamburg und Berlin.
2. Elias. 2008. Pembukaan Wilayah Hutan. IPB Press. Bogor