

Module/Course Description

FOREST PLANNING (MNH 418)

A. Module Identity		
1.	Name	Forest Planning
2.	Code	MNH 418
3.	Credit	3 (2-3)
4.	Semester	7
5.	Coordinator	Dr. Ir. Buce Saleh, MS.
6.	Lecturers	Dr. Ir. Buce Saleh, MS. Prof. Dr. Ir. I Nengah Suratni Jaya, M.Agr.
7.	Language	Indonesian
8.	Program(s) in which the course is offered	Internal department: Forest Management Program Other departments:
9.	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	Exercise	Laboratory	Practice			
3		28	39			56		123

*) 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)
Students having the ability to comprehend, apply and conclude quantitative applicative technique in forest planning.

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 recognize the scope and development of forest planning science	Presentation of teaching materials. Debriefing sessions	Midterm Exam
2.	Students are able to explain the ecosystem-based forest management	Presentation of teaching materials. Debriefing sessions Practicum	Midterm Exam; Structure Assignments
3.	Students are able to outline the roles of forest planning in forest management to sustain ecological, economic and social values	Presentation of teaching materials. Debriefing sessions Practicum	Midterm Exam; Structure Assignments
4.	Students are able to explain the types of planning	Presentation of teaching materials. Debriefing sessions Practicum	Final Exam; Structure Assignments
5.	Students are able to distinguish the forest management objective based on several approaches of decision making	Presentation of teaching materials. Debriefing sessions Practicum	Final Exam; Structure Assignments
6.	Students are able to explain the participative learning	Presentation of teaching materials. Debriefing sessions Practicum	Final Exam; Structure Assignments
b.	Skills		
1.	Students are able to apply the techniques on ecosystem-based forest planning	Presentation of teaching materials. Debriefing sessions Practicum	Midterm Exam; Practicum Report
2.	Students are able to apply the	Presentation of teaching	Midterm Exam;

	techniques of forests area stewardship	materials. Debriefing sessions Practicum	Practicum Report
3.	Students are able to explain the establishment of forest management units and are able to create the case for establishing a forest management unit	Presentation of teaching materials. Debriefing sessions Practicum	Midterm Exam; Practicum Report
4.	Students are able to design strategic plans by utilizing spatial information	Presentation of teaching materials. Debriefing sessions Practicum	Midterm Exam; Practicum Report
5.	Students are able to design tactical plans through several examples of cases by utilizing spatial information	Presentation of teaching materials. Debriefing sessions Practicum	Final Exam; Practicum Report
6.	Students are able to demonstrate the techniques of developing spatial modelling of forest planning	Presentation of teaching materials. Debriefing sessions Practicum	Final Exam; Presentation
7.	Students are able to use the framework analysis in planning	Presentation of teaching materials. Debriefing sessions Practicum	Final Exam; Presentation

E. Module Content		
List of Topic	Number of Weeks	Contact Hours
Introduction	1	2
Concept of Ecosystem-Based Forest Management	1	2
Concept of Forest Planning in Ecosystem-Based Management	1	2
Concept of Forest Stewardship	1	2
The Concept of Establishment of Forest Management Units	1	2
Forestry Planning to Maintain Ecological, Economic, and Social Values	1	2

Spatial-Based Strategic Planning	1	2
Spatial-Based Tactical Planning	1	2
Spatial Modeling of Forest Planning	1	2
Space Optimization in Forest Planning	1	2
Planning as A Discipline	1	2
Objective Establishment and Decision Making	1	2
Framework Analysis in Planning	1	2
Participate Planning	1	2

F. Course Assessments			
No.	Assessment Type *)	Schedule (Week Due)	Proportion of the Final Mark
1.	Mid-term examination	8th week	25 %
2.	Practicum Report	3th,4th,5th,7th,9th week	20 %
3.	Structured assignments	2th,6th,12th,13th,15th week	20%
4.	Presentation	11th and 14th week	10%
5.	Final examination	16th week	25 %

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

G. Media Employed
<ul style="list-style-type: none"> - Classroom - Laptop - LCD - Microphone (loudspeaker)

H. Learning Resources
<ol style="list-style-type: none"> 1. Suhendang E, Jaya INS, Hadjib A. 2005. <i>Diktat Ilmu Perencanaan Hutan</i>. Bogor (ID): Bagian Perencanaan Kehutanan Departemen Manajemen Hutan, Fakultas Kehutanan IPB. 2. Suhendang E, Jaya INS, Hadjib A. 2005. <i>Penuntun Praktikum Perencanaan Hutan</i>. Bogor (ID): Bagian Perencanaan Kehutanan Departemen Manajemen Hutan, Fakultas Kehutanan IPB. 3. Bettinger P, Wing MG. 2004. <i>GIS Application in Forestry and Natural Resource Management</i>. 4. Davis et al. 2001. <i>Forest Management: to sustain ecological, economic and social values</i>. 5. Esri. 1996. <i>Using The Arc-view Spatial Analyst</i>. 6. Goodchild MF et al. 1996. <i>GIS and Environmental Modeling: Progress and Research</i>

Issues.

7. Jaya INS, 2002. *Aplikasi Sistem Informasi Geografis untuk Kehutanan*. Bogor (ID): IPB Press.
8. Jaya INS. 2006. *Teknik-teknik Pemodelan Spasial*. Bogor (ID): IPB Press.
9. Pukkala T. 2002. *Multi Objective Forest Planning*. Dordrecht, Boston, London (UK): Kluwer Academic Publisher.