Module/Course Description

FOREST RESOURCE INVENTORY (MNH 212)

A. Module Identity		
1.	Name	Forest Resource Inventory
2.	Code	MNH 212
3.	Credit	3 (2-3)
4.	Semester	4
5.	Pre-requisite	Statistics Analysis
6.	Coordinator	Dr. Ir. Muhdin, M.Sc.
7.	Lecturers	Dr. Ir. Budi Kuncahyo, MS.
		Dr. Ir. Muhdin, M.Sc.
		Dr. Tatang Tiryana, S.Hut., M.Sc.
		Dra. Sri Rahaju, M.Si.
		Priyanto, S.Hut., M.Si.
8.	Language	Indonesian
9.	Program(s) in which the course is offered	Internal department: Forest Management Program
		Other departments: …………………….
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		15	24	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 have the basic knowledge and skills of theoretical as well as practical techniques and tree dimensional measurement of forest stands, and has a basic knowledge of the techniques of random sampling and systematic in forest resource inventory and data processing procedures, as the basic science in the management of forest resources.

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 **define** the meaning and importance and scope of the basics of forest resource inventory activities in forest management	Lecturer's explanation through face to face in the classroom and FAQs	Written test (Midterm Exam) 10%
b.	**Skills**		
1.	Students are able to **explain** the various dimensions and sortiments of tree trunks, as well as **demonstrate** the measurement techniques.	Lecturer's explanation through face to face in the classroom and debriefing followed by laboratory experiments and field.	Written test (Midterm Exam) 20%
2.	Students are able to **describe** the various dimensions of the stand, its development and **operate** the ways / techniques of measurement.	Lecturer's explanation through face to face in the classroom and debriefing followed by laboratory experiments and field.	Written test (Midterm Exam) 20%
3.	Students are able to **recognize** the relationships between variables analysis tree dimensions, and also able to **create** a model for the relationship in order to construct and use a table tree volume.	Lecturer's explanation through face to face in the classroom and debriefing followed by laboratory experiments and field.	Written Test (Final Exam) 20%
c.	**Competences:**		
1.	Students can **classify** the	Lecturer's explanation through	Written Test (Final

	techniques of selecting samples to estimate the potential of forest stands and are technically capable to **appraise** the sampling method chosen.	face to face in the classroom and debriefing followed by a response in the laboratory.	Exam) 20%
2.	Students are able to **explain** all sorts of non-timber forest products and techniques for measurement and estimation to **interprets** the potential of non-timber forest products.	Lecturer's explanation through face to face in the classroom and debriefing followed by a response in the laboratory.	Written Test (Final Exam) 10%

E. Module Content

List of Topic	Number of Weeks	Contact Hours
Introduction	1	2
Measurement of tree and stem dimensions	3	6
Measurement of stand dimensions	3	6
Volume table preparation	2	4
Sampling technique in forest resource inventory	4	8
Basics of potential estimate the non-timber forest	1	2

F. Course Assessments

No.	Assessment Type *)	Schedule (Week Due)	Proportion of the Final Mark
1.	**Mid-term examination**	**8th week**	**50 %**
2.	**Final examination**	**16th week**	**50 %**

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

G. Media Employed

- Classroom
- Laptop
- LCD
- Microphone (loudspeaker)
- Practical tools

H. Learning Resources

1. Akca. 2000. *Forest Inventory*. Gottingen.

2. Avery TE. 1967. *Forest Measurement.* New York (US): McGraw Hill Book Company.

3. Bruce D, and Schumacher FX. 1950. *Forest Mensuration*. 3rd ed. New York (US): McGraw Hill Book Company.

4. Cochran. 1977. *Sampling Techniques.* John Wiley & Sons.

5. DeVries. 1986. *Sampling Theory for Forest Inventory*. Springer.

6. Loestsch F, Haller KE. 1970. *Forest Inventory, Volume I*. Muenchen (DE): BLV Verlagsgessellschaft.

7. Loestsch F, Zohrer F, and Haller KE. 1973. *Forest Inventory, Volume II*. Muenchen (DE) BLV Verlagsgessellschaft.

8. Philip MS. 1994. *Measuring Trees and Forest, 2nd ed*. CAB International Wallingford.

9. Schreuder, Gregoire, Wood. 1996. *Sampling Methods for Multiresource Forest Inventory.* Wiley.

10. Shiver BD, Borders BE. 1996. *Sampling Techniques for Forest Resource Inventory.* New York (US): John Willey & Sons, Inc.

11. Spurr SH. 1952. *Forest Inventory*. New York (US): The Ronald Press Company.

12. Van Laar A, Akca A. 1997. Forest Mensuration. Göttingen (DE): Cuviller Verlag.