COURSE MODULE
FACULTY OF FORESTRY
MULAWARMAN UNIVERSITY

Module name	Advance on Processing of Forest Product
Modul level, if applicable	Master program
Code, if applicable	190401802W007
Subtitle, if applicable	
Courses, if applicable	Regular
Semester(s) in which the module is taught	I
Person responsible for the module	
Lecturer	
Language	Indonesian, English
Relation to curriculum	Compulsory
Type of teaching, contact hours	Direct instruction, discussion, assignment
Workload	The expected workload will consist of around 79.4 hours in 16 weeks (14 meetings for learning activity, a meeting for mid-semester test, a meeting for final exam) throughout the semester which consists of: • Face to face component (lectures) consists of 2 x 50 minutes per week. • Structured assignments for 2 x 60 minutes per week. • Self-directed study for 2 x 60 minutes per week.

Credit points	2 SKS/3.2 ECTS
	
	 Details:
	 1 Credits = 170mins/week/semester
	 1 Credits = 170 mins x 14 week = 2,380 mins
	            = 39.7hours/semester
	 1 ECTS = 39.7h/25h
	           = 1.6
	
	 Explanation:
	 • 1 semester = 16 weeks which includes 14 meetings for learning activity, one meeting for mid-semester test in between, and one meeting for final examination at the end of semester.
	 • 1 semester consists of 2 quartiles, 1 quartile equals to 12.5 – 15 ECTS, therefore 1 ECTS = 25 – 30 hours. The 25 hours is set as the standard for 1 ECTS.

Requirements according to the examination regulations	Have attended not less than 80% class meetings
Recommended prerequisites	
Module objectives/intended learning outcomes	After attending the course, students have the ability to: 1. Understand the role of forests as a source of energy. 2. Gain insights into the processing of non-wood forest products. 3. Acquire knowledge about the processing of natural dyes and tannins as non-wood forest products. 4. Explore the processing of aromatic plant products as raw materials for essential oil production. 5. Learn about natural drying techniques. 6. Understand methods for artificial drying.

	7. Gain knowledge about wood preservation, including its definition, objectives, and factors degrading wood.
	8. Understand wood preservation, including preservative materials, wood preparation before preservation, and the preservation process.
	9. Comprehend the content covered in the midterm exam from Edy Budiarso and Harlinda Kuspradini.
	10. Understand the conversion of biomass to solid energy, including charcoal and wood pellets.
	11. Gain insights into the processes involved in pulp and paper production.
	12. Successfully complete the assignment involving the summarization of an article.
Content	This course provides students with a comprehensive understanding of forests as an energy source and insights into the processing of non-wood forest products. Students will acquire knowledge about treating natural dyes and tannins as valuable non-wood forest products and explore the processing of aromatic plant products for essential oil production. The course covers both natural and artificial drying techniques, wood preservation concepts, and the content of the midterm exam by Edy Budiarso and Harlinda Kuspradini. Students will also understand biomass conversion to solid energy, including charcoal and wood pellets, and gain insights into pulp and paper production processes. The course includes a practical assignment requiring students to successfully summarize an article.
Study and examination requirements and forms of examination	Evaluation and assessment of the learning process are following scheme 5 in the Academic Regulations of Mulawarman University:

No.	Objects of Assessment	Forms of Assessment	Quantity (%)
1	Affective and class attendance	Participation	10
2	Assignment	Q&A	20
3	Mid-semester test	Written test	30
4	Final semester test	Written test	40
	TOTAL		100

Media employed	
Reading list	