



University Gadjah Mada
 Faculty of Forestry
 Study Program of Doctor in Forestry Science
Module Handbook

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|---|--|--|--------------------------------|--|-----------------------|---|-----------------|-------------|------------------|
| Name (Code) | : Sustainable Tropical Forest Development (KTDU22803) | | | | | | | | |
| ECTS Type Status | : 7.5 Class lecture Compulsory | | | | | | | | |
| Semester OfL:OnL Ratio LMS | : 1 60:40 elok.ugm.ac.id | | | | | | | | |
| Pre-Requisite | : - | | | | | | | | |
| Description of content | : This course discusses the concept of sustainable development and its application to sustainable forest management (SFM), studies of silvicultural systems that operate in Indonesia as efforts to conserve and develop forestry plant genetic resources in Indonesia through adaptive silvicultural techniques, concept of conservation biology, biodiversity security and the contribution of conservation ethics in dealing with the risk of species extinction, as well as the implementation of the principles of sustainability in the forest product industry and handling it through programs for developing and innovating new environmentally friendly products in the forest product industry | | | | | | | | |
| Course Outcomes and PLO mandated | Finishing this course, student will be able to 1. Analyze the relevance of the concept of sustainable development (sustainable development) and sustainable forest management (sustainable forest management) in Indonesian tropical forests (CLO1/PLO2), 2. Analyze the application of silvicultural principles in supporting the preservation and development of sustainable forest resources in Indonesia (CLO2/PLO3), 3. Master the concepts of conservation biology in spatial management and species conservation to support the development of sustainable tropical forests, and be able to identify conservation strategies on a global, national and local scale (CLO3/PLO3), and 4. Design the implementation of sustainability principles in the forest product processing industry and develop forest product products (CLO4/PLO4) | | | | | | | | |
| Lecturer(s) | 1. Prof. Dr. Ris Hadi Purwanto | | 4. Dr. Ir. Lies Rahayu WF | | 6. Dr. Sapto Indrioko | | | | |
| | 2. Dr. Wahyu Wardhana | | 5. Dr. M. Ali Imron, M.Sc | | 7. Prof. Dr. Budiadi | | | | |
| | 3. Dr. Ir. J. Gentur Sutapa, M.Sc. | | | | | | | | |
| 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. | | | | | | | | |
| Learning Method | : Class Lecture and Discussion | | | | | | | | |
| Student Learning Experience | : Actively discuss the class material and research cases, structured assignment, group work, quiz, material reflection, review of literature and problem in forestry sectors | | | | | | | | |
| Mapping CO-syllabus | CLO | Syllabus | | | | Learning form | Meetings | | |
| | 1 | <ul style="list-style-type: none"> Development of Indonesia's tropical forest management Concepts of sustainable development (SD) and sustainable forest management (SFM) Evaluation of the SD and SF concepts in Indonesia | | | | Class lecture, discussion, assignment, presentation | 4 | | |
| | 2 | <ul style="list-style-type: none"> Silvicultural system in Indonesia for natural resource preservation Efforts to develop plant genetic resources in Indonesia. Adaptive silvicultural techniques in mitigating CC impacts. | | | | Class lecture, assignment, presentation | 4 | | |
| | 3 | <ul style="list-style-type: none"> Conservation biology concepts in species conservation Risk of extinction in biodiversity security Conservation ethics and strategies for SD | | | | Class lecture, discussion, presentation | 4 | | |
| | 4 | <ul style="list-style-type: none"> Development of timber and non-timber forest product industries (FPI) Sustainability principles in FPI and its management Waste production and handling in FPI Program development and innovation of forest products | | | | Class lecture, discussion, presentation | 4 | | |
| Assessment method | Base of Evaluation | | Component of Evaluation | | CLO1 | CLO2 | CLO3 | CLO4 | Total (%) |
| | Participative activity | | Assignment, quiz | | √ | | √ | √ | 35 |
| | Cognitive & Psychomotoric | | Exams | | | √ | | √ | 30 |
| | Case Study result | | Presentation | | √ | √ | √ | √ | 35 |
| References | <ol style="list-style-type: none"> Davis, L.S. 2001. Forest Management To Sustain Ecological, Economic, and Social Values. Fourt Edition. McGraw Hill Higher Education. New York, USA. Fujimori, T. 2001. Ecological and Silvicultural Strategies for Sustainable Forest Management. Elsevier. Tokyo, Japan. Biggs R, Schuler M, & Schoon ML (eds.). 2015. Principles for Building Resilience: Sustaining Ecosystem Services in Social-Ecological Systems. Cambridge, University Press. | | | | | | | | |