



## Course Module

### Ecosystem-specific Ecology

Faculty of Forestry

Mulawarman University

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| Module name                                           | Ecosystem-specific Ecology                                                                                                                                                                                                                                                                                                                               |
| Modul level, if applicable                            | Graduates Programme                                                                                                                                                                                                                                                                                                                                      |
| Code, if applicable                                   | 190401802P012                                                                                                                                                                                                                                                                                                                                            |
| Subtitle, if applicable                               |                                                                                                                                                                                                                                                                                                                                                          |
| Courses, if applicable                                | Regular                                                                                                                                                                                                                                                                                                                                                  |
| Semester(s) in which the module is taught             | II (two)                                                                                                                                                                                                                                                                                                                                                 |
| Person responsible for the module                     | Dr. Rachmat B. Suba, S.Hut., M. Sc.                                                                                                                                                                                                                                                                                                                      |
| Lecturer                                              | Dr. Rachmat Budiwijaya Suba, S.Hut., M.Sc.                                                                                                                                                                                                                                                                                                               |
| Language                                              | Indonesia                                                                                                                                                                                                                                                                                                                                                |
| Relation to curriculum                                | Compulsory                                                                                                                                                                                                                                                                                                                                               |
| Type of teaching, contact hours                       | Lecture, 1 lecture contact hours                                                                                                                                                                                                                                                                                                                         |
| Workload                                              | Number of meetings per semester: 16 meetings<br>(14 meetings for learning activity, 1 meeting for mid semester, 1 meeting for final examination)<br>2 x 50 minutes lectures, 2 x 60 minutes structured assignment, 2 x 60 minutes individual activity, with a total time of 4760 minutes or equivalent to a total of 79.3 hours in 14 weeks per semester |
| Credit points                                         | 2 SKS (3.2 ECTS)<br>Details:<br>1 Credit = 170 min/week<br>1 Credit = 170 min x 14 week = 2,380 min/semester<br>1 ECTS = 25 h / semester<br>1 Credit = 2,380 / 60 / 25 = 1.59 = 1.6 ECTS<br>2 Credit = 1.6 x 2 = 3.2 ECTS                                                                                                                                |
| Requirements according to the examination regulations | Have attended not less than 80% class meetings                                                                                                                                                                                                                                                                                                           |
| Recommended prerequisites                             |                                                                                                                                                                                                                                                                                                                                                          |
| Module objectives/intended learning outcomes          | <p><b><u>Intended Learning Outcomes</u></b></p> <p><b><u>Engineering Analysis</u></b></p> <p><b>ILO-2</b> : Mastering specialized knowledge, skills and techniques in the field of forestry and tropical environment and being able to develop innovative theories, models and methods in their field.</p> <p><b><u>Investigation</u></b></p>            |

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|         | <p><b>ILO-3</b> : Able to analyze current problems and issues, and assess the ecological, social, and economic impacts of implementing programs in the forestry and tropical environmental sectors.</p> <p><b><u>Engineering Design and Practice</u></b></p> <p><b>ILO-4</b> : Develop research schemes based on inter or multidisciplinary approaches to tropical forestry and the environment, and communicate the results to the public.</p> <p><b><u>Course Learning Outcomes</u></b></p> <p><b><u>Engineering Analysis</u></b></p> <p><b>CLO-2</b> :Students are able to analyze current problems and issues, and assess the ecological, social, and economic impacts of implementing programs in the forestry sector and tropical forest environment in the realm of philosophy of science</p> <p><b><u>Investigation</u></b></p> <p><b>CLO-3</b> : Students are able to compile research schemes based on inter- or multi-disciplinary approaches to forestry and tropical forest environment, and communicate the results to the public based on the concept of philosophy of science</p> <p><b><u>Engineering Design and Practice</u></b></p> <p><b>CLO-4</b> : Students are able to work together in teams, and are responsible for achieving group work results and the performance of the forestry sector and tropical forest environment system in the application of philosophy of science.</p> |
| Content | <p>This course discusses the characteristics, dynamics, and functions of specific ecosystems in tropical forests, such as mangrove ecosystems, peat swamps, lowland forests, and mountain forests. Students will learn the relationship between biotic and abiotic components, ecosystem analysis techniques, and innovative approaches in the management and conservation of specific ecosystems. In addition, this course also emphasizes the analysis of current issues, evaluation of ecological, social, and economic impacts, and the design of research based on a multidisciplinary approach that is relevant to addressing ecosystem conservation challenges. Students are expected to be able to develop data-based solutions to support the sustainability of tropical forest ecosystems.</p> <p>After attending this course, students have the ability to:</p> <ol style="list-style-type: none"> <li>1. describe the characteristics of specific ecosystems (mangroves, peat swamps, lowland forests, etc.) in tropical forest areas.<br/><b>(CLO-1)</b></li> </ol>                                                                                                                                                                                                                                                                                                                              |

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