



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

Name (Code)	: Strategy of Data Analysis (KTDM22802)						
ECTS Type Status	: 7.5 Class lecture Elective						
Semester OfL:OnL Ratio LMS	: 2 60:40 elok.ugm.ac.id						
Pre-Requisite	: -						
Description of content	: This course discusses understanding of data collection and analysis techniques in the field of natural resource management, especially forests, landscape and forest land, wildlife, and social communities. From the analysis of data on selected forest ecosystems, it is then formulated in a manuscript for accredited national journals, namely: Indonesian Journal of Forestry Research (IJFR), Journal of Tropical Forest Management (JMHT), Journal of degraded and mining lands management (JDMLM), and Biodiversity.						
Course Outcomes and PLO mandated	Finishing this course, students will be able to collect data from knowledge databases focusing on tropical forest ecosystems and analyze further in the form of meta-analysis and systematic reviews (CO1/PLO3 and PLO4), and to develop and implement the results of data analysis which rely on the sustainability of forest ecosystems interest in the form of a manuscript draft for national accredited journals, i.e.: IJFR, JMHT, JDMLM, and Biodiverse (CO2/PLO7).						
Lecturer(s)	Dr. Ir. Ronggo Sadono Dr. Wahyu Wardhana						
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	CO	Syllabus	Learning form	Meetings			
	1	1. Mapping the analysis data in formulating new findings and contributing to an accessible knowledge database 2. Formulating research question by the use of root cause analysis 3. Determining the objective by the use of multicriteria analysis and analysis of the hierarchical process 4. Collecting data from the reputable knowledge database 5. Analyzing data in the form of qualitative comparative analysis, meta-analysis, and systematic review	Class lecture and discussion	7			
	2	6. Formulating Introduction 7. Describing the appropriate applied methods 8. Presenting the findings and results 9. Formulating the discussion 10. Submitting the manuscript to the targeted journal	Class lecture and discussion	7			
Assessment method	Base of Evaluation		Component of Evaluation		CO1	CO2	Total (%)
	Participative activity		Assignment, quiz, presentation		√		25
	Cognitive & Psychomotoric		Mid exam		√		25
	Case Study result		Final exam/ presentation			√	50
References	1. Berbel J, Bournaris T, Manos B, Matsatsinis N, Viaggi D. 2018. Multicriteria Analysis in Agriculture. Springer International Publishing. 2. Cleophas, Ton J., Zwinderman, Aeilko H. 2017. Modern Meta-Analysis: Review and Update of Methodologies. Springer, Springer International Publishing. 3. Dusa A & Thiem A. 2013. Qualitative Comparative Analysis with R: A User's Guide. Springer, New York. 4. Emrouznejad A, Ho W. 2018. Fuzzy Analytic Hierarchy Process. Chapman and Hall/CRC. 5. Gough D, Oliver S, Thomas J. (Editors). 2013. An Introduction to Systematic Reviews. SAGE Publications. 6. Kröger M. 2021. Studying Complex Interactions and Outcomes Through Qualitative Comparative Analysis: A Practical Guide to Comparative Case Studies and Ethnographic Data Analysis. Routledge. 7. Okes D. 2019. Root Cause Analysis. Second Edition: The Core of Problem Solving and Corrective Action. ASQ Quality Press.						

