



**MODULE HANDBOOK DESCRIPTION**

Module designation	Transmission & Distribution Laboratory	
Code	FBA3212	
Semester(s) in which the module is taught	6 / third year	
Person responsible for the module	Sultan, ST., MT.	
Language	Indonesian	
Relation to curriculum	Concentration Elective for Electrical Power System Engineering	
Teaching methods	Contextual Instruction (CI)	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester : <ul style="list-style-type: none"> <li>• Practice: 1 x 50 minutes</li> <li>• Data analysis: 1 x 60 minutes</li> <li>• Writing report: 1 x 60 minutes.</li> </ul> Total study hours = 2 hours 50 minutes/week	
Credit points	1 (~ 1,6 ECTS)	
Required and recommended prerequisites for joining the module	- Electric Power Transmission (FBA3102) - Modern Distribution System (FBA3211)	
Module objectives/intended learning outcomes	1. Students are able to analyze medium power transmission and compensators, three-phase transformers, primary distribution systems (three-phase systems), and energy metering.	PLO3
	2. Students are able to make test circuits for medium and compensator transmission lines, three-phase transformers, three-phase primary distribution systems, and energy metering based on the instructions of the practicum module.	PLO4
	3. Students are able to compare the analysis results of medium transmission lines and compensators, three-phase transformers, three-phase distribution systems, and energy metering with the experimental results and conclusions and then report the results.	PLO5

Content	<ol style="list-style-type: none"> <li>1. Advanced AC Machine</li> <li>2. Advanced DC Motor</li> <li>3. Starting of AC and DC Motors</li> <li>4. Generator Synchronization</li> </ol>
Examination forms	<ol style="list-style-type: none"> <li>1. Pre-test</li> <li>2. Practice skills</li> <li>3. Practice report</li> <li>4. Response</li> </ol>
Study and examination requirements	<p>The final grade in the module is composed of:</p> <ol style="list-style-type: none"> <li>1. Pre-test and practice skills = 20%</li> <li>2. Practice report and response = 80%</li> </ol> <p>Students must have a final grade of 65% or higher to pass</p>
Reading list	<ol style="list-style-type: none"> <li>1. Laboratorium Sistem Tenaga Listrik, 2013, "Modul Praktikum Transmisi dan Distribusi", Jurusan Teknik Elektro, Fakultas Teknik, Universitas Mataram.</li> <li>2. Grainger, J.J., dan Stevenson W.D.Jr., 1994, "Power Sistem Analysis", McGraw-Hill, Inc., Singapore.</li> <li>3. Saadat, H., 1999, "Power System Analysis", McGraw-Hill, Singapore.</li> </ol>