MODULE HANDBOOK DESCRIPTION

Module designation	Basic Electric Power Laboratory	
Code	FBS2234	
Semester(s) in which the module is taught	4/second year	
Person responsible for themodule	Ida Bagus Fery Citarsa, ST., MT.	
Language	Indonesian	
Relation to curriculum	Compulsory for all Majors	
Teaching methods	Contextual Instruction (CI)	
Workload (incl. contacthours, self-study hours)	Contact minutes every week, each week of the 16weeks/semester : • Practice : 1 x 50 minutes • Data analysis : 1 x 60 minutes • Writing report : 1 x 60 minutes. Total study hours = 2 hours 50 minutes/week	
Credit points	1 (~ 1,6 ECTS)	
Required and recommended prerequisites for joiningthe module	- Electrical Circuit I (FBS1213) - Electrical Circuit II (FBS2122) - Basic Electric Power (FBS2126)	
Module objectives/intend edlearning outcomes	1. Students are able to analyze short transmission line, transformer, synchronous generator, induction motor, separately excited dc generator, separately excited dc motor.	PLO3
	2. Students are able to assemble short transmission lines, transformers, synchronous generators, induction motors, separately-amplified dc generators, separately-amplified dc motors based on the practicum module instructions.	PLO4
	3. Students are able to compare the analysis results of short transmission line, transformer, synchronous generator, induction motor, separately excited dc generator, separately excited dc motor with the experimental results and make conclusions then report the results.	PLO5

Content	1. Short transmission line with RL load variations 2. Short transmission line with RL load variations and C compensation 3. A transformer with the same primary and secondary coils 4. Step-up transformer 5. Step-down transformer 6. Observation of transformer parameters 7. Transformer transformation 8. No-load transformer 9. Short circuit transformer 10. Synchronous Generator 11. Induction Motor 12. Separately Excited DC generator 13. Separately Excited DC motor
Examination forms	1. Pre-test 2. Practice skills 3. Practice report 4. Response
Study and examination requirements	The final grade in the module is composed of: 1. Pre-test and practice skills = 20% 2. Practice report and response = 80% Students must have a final grade of 65% or higher to pass
Reading list	1. Laboratorium Sistem Tenaga Listrik, 2013, "Modul Praktikum Dasar Teknik Tenaga Listrik", Jurusan Teknik Elektro, Fakultas Teknik, Universitas Mataram. 2. Theraja, B. L. and Theraja, A. K., 2005, "A Text Book of Electrical Technology I (Basic Electrical Engineering in S.I System of Units)", S. Chand & Company LTD, Ram Nagar, New Delhi. 3. Hughes, E., 2008, "Electrical and Electronic Technology (Tenth Edition), Pearson Education Limited, England. 4. Charles K. A and Matthew N.O.S, 2009, "Fundamentals of Electric Circuiuts (Fifth Edition)", McGraw-Hill, USA. 5. Fitzgerald, A. E., Kingsley, C., Umans, S. D., 2005, Electric Machinery, McGraw Hill, New York. 6. *Zuhal, 1992, "Dasar* Teknik *Tenaga Listrik* Dan Elektronika Daya", *Gramedia* Pustaka Utama, Jakarta.