MODULE HANDBOOK DESCRIPTION

Module designation	Maintenance of EPS Equipment	
Code	FBA0005	
Semester(s) in which the module is taught	7 / fourth year	
Person responsible for the module	I Made Ari Nrartha, S.T., M.T.	
Language	Indonesian.	
Relation to curriculum	Free elective for Electrical Power System Engineering	
Teaching methods	Lectures, small group discussion, Discovery Learning, Self-Directed Learning, Contextual Learning, Case-based Learning, Collaborative Learning.	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester: • Lectures: 2 x 50 minutes • Exercises and Assignments: 2 x 60 minutes • Private study: 2 x 60 minutes. Total study hours = 5 hours 40 minutes/week	
Credit points	2 SKS (~ 3.2 ECTS)	
Required and recommended prerequisites for joining the module	- Electric Machines (FBA3104) - Electric Power Transmission (FBA3102) - Modern Distribution System (FBA3211) - Power Systems Protection (FBA4115)	
Module objectives/intended learning outcomes	1. Students are able to analyze the conditions of power system components such as generators and transformers, and determine the need for maintenance in order to ensure these power system components can work optimally.	PLO3
	2. Students are able to categorize the conditions of power system components that can disrupt the operation of the system as a whole, and determine which maintenance treatments should be carried out immediately.	PLO4

	3. Students are able to summarize technical knowledge in the maintenance of power system equipment, for lifelong learning needs as a professional responsibility.	PLO9
Content	1. Transformer Components and Maintenance, 2. Maintenance of Motors, 3. Performance and Operation of Generators, 4. Generator Surveillance and Testing, 5. Generator Inspection and Maintenance, 6. Generator Operational Problems and Refurbishment Options, 7. Used-Oil Analysis, 8. Vibration Analysis, 9. Power Station Electrical System and Design Requirements.	
Examination forms	- Assignment - Written case study	
Study and examination requirements	The final grade in the module is composed of: 1. Assignment : 10 % 2. Case I assessment: 15% 3. Case II assessment: 20% 4. Case III assessment: 20% 5. Case III assessment: 35% Students must have a final grade of 65% or higher to pass	
Reading list	1. Kiameh, P., 2003, Electrical Equipment Handbook: Troubleshooting & Maintenance, McGraw-Hill Handbooks. 2. Gill, P., 2009, Electrical Power Equipment Maintenance and Testing, CRC Press.	