



**MODULE HANDBOOK DESCRIPTION**

Module designation	Basic Electronics Laboratory	
Code	FBS2233	
Semester(s) in which the module is taught	4/second year	
Person responsible for the module	Budi Darmawan, ST., M.Eng.	
Language	Indonesian	
Relation to curriculum	Compulsory for all Majors	
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	- Basic electronics (FBS2125)	
Module objectives/intended learning outcomes	1. Students are able to analyze diode configuration, rectifier, zener diode, bipolar junction transistors, and field effect transistors.	PLO3,
	2. Students are able to assemble diode configuration, rectifier, zener diode, bipolar junction transistors, and field effect transistors based on instructions from the practicum module.	PLO4
	3. Students are able to compare the analysis results of diode configuration, rectifier, zener diode, bipolar junction transistors, and field effect transistors with the experimental results and make conclusions then report the results.	PLO5

Content	<ol style="list-style-type: none"> <li>1. Diode Configuration,</li> <li>2. Rectifier,</li> <li>3. Zener Diode,</li> <li>4. Bipolar Junction Transistors,</li> <li>5. Field Effect Transistors.</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>a. Pre-test and practice skills = 50%</li> <li>b. Practice report and response = 50%</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. Floyd, T. L., 2011, Electronic Devices 9th ed., Prentice Hall.</li> <li>2. Sedra S., and Smith, K.C., 2011, Microelectronic Circuits 6th ed., Oxford University Press.</li> <li>3. Boylestad, R., and Nashelsky, L., 1993, Electronic Devices and Circuit Theory.</li> </ol>