



MODULE HANDBOOK DESCRIPTION

Module designation	<i>Basic Electronics</i>	
Code	<i>FBS2125</i>	
Semester(s) in which the module is taught	<i>3/second year</i>	
Person responsible for the module	<i>Paniran, ST., MT.</i>	
Language	<i>Indonesian</i>	
Relation to curriculum	<i>Compulsory for all majors</i>	
Teaching methods	<i>lectures, small group discussion, case base method.</i>	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester: <ul style="list-style-type: none"> • Lectures: 3 x 50 minutes • Exercises and Assignments: 3 x 60 minutes • Private study: 3 x 60 minutes. total study hours = 8 hours 30 minutes/week	
Credit points	<i>3 SKS (~ 4.8 ECTS)</i>	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	<i>1. Students are able to understand the Semiconductor Diodes, Diode Applications, Bipolar Junction Transistor (BJT), DC Biasing-BJTs, Field-Effect Transistors (FET), and FET Biasing</i>	<i>PLO2</i>
	<i>2. Students are able to analyse the Diode Applications, DC Biasing-BJTs and FET Biasing</i>	<i>PLO3</i>
	<i>3. Students are able to design the Diode Applications, DC Biasing-BJTs and FET Biasing.</i>	<i>PLO4</i>

Content	<ol style="list-style-type: none"> 1. <i>Semiconductor Diodes</i> 2. <i>Diode Applications</i> 3. <i>Bipolar Junction Transistor (BJT)</i> 4. <i>DC Biasing – BJTs</i> 5. <i>Field-Effect Transistors (FET)</i> 6. <i>FET Biasing</i>
Examination forms	<ul style="list-style-type: none"> - <i>Written case study</i> - <i>Midterm and final test</i>
Study and examination requirements	<p><i>The final grade in the module is composed of:</i></p> <ol style="list-style-type: none"> a. <i>Case I assessment: 15%</i> b. <i>Case II assessment: 15%</i> c. <i>Midterm assessment: 35%</i> d. <i>Final assessment: 35%</i> <p><i>Students must have a final grade of 65% or higher to pass</i></p>
Reading list	<ol style="list-style-type: none"> 1. <i>Robert Boylestad and Louis Nashelsky. 2012. Electronic Devices and Circuit Theory 11th Ed. Pearson New International Edition</i> 2. <i>Neil Storey, 2017. Electronics: A Systems Approach, 6th edition. Pearson New International Edition.</i> 3. <i>John Birds, 2021. Electrical and Electronic Principles and Technology, Third Edition 7th Edition, Routledge.</i> 4. <i>Gerado Mesias, 2017. Electronics: Theory and Practice 1st ed, Routledge</i>