MODULE HANDBOOK DESCRIPTION

Module designation	*Electronic Circuits*	
Code	*FBB3101*	
Semester(s) in which the module is taught	*5/Third year*	
Person responsible for the module	*Paniran, ST., MT.*	
Language	*Indonesian*	
Relation to curriculum	*Compulsory for all majors*	
Teaching methods	*lectures, small group discussion, case base method.*	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester: • 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	*3 SKS (~ 4.8 ECTS)*	
Required and recommended prerequisites for joining the module	*- Electrical Circuit 1 (FBS1213)* *- Basic Electronics (FBS2125)*	
Module objectives/intended learning outcomes	*1. Students are able to explain the Bipolar Junction Transistor (BJT) Models, BJTs Small-Signal Analysis, FETs Small-Signal Analysis, System Approach-effect of Load Impedance (R_L) and Source Impedance (R_S), Power Amplifiers, Power Supplies (Voltage Regulators), PNPN and Other Devices*	*PLO2*
	2. Students are able to analyse the Bipolar Junction Transistor (BJT) Models, BJTs Small-Signal Analysis, FETs Small-Signal Analysis, System Approach-effect of Load Impedance (R_L) and Source Impedance (R_S), Power Amplifiers, Power Supplies (Voltage Regulators), PNPN and Other Devices	*PLO3*

	3. Students are able to design the BJTs, JFETs, Load Impedance (R_L) and Source Impedance (R_S), and Power Supplies (Voltage Regulators).	*PLO4*
Content	*1. Bipolar Junction Transistor (BJT) Models* *2. BJTs Small-Signal Analysis (AC)* *3. FETs Small-Signal Analysis (AC)* *4. System Approach-effect of Load Impedance (R_L) and Source Impedance (R_S)* *5. Power Amplifiers* *6. Power Supplies (Voltage Regulators)* *7. PNPN and Other Devices*	
Examination forms	- *Written case study* - *Midterm and final test*	
Study and examination requirements	*The final grade in the module is composed of:* *a. Case I assessment: 15%* *b. Case II assessment: 15%* *c. Midterm assessment: 35%* *d. Final assessment: 35%* *Students must have a final grade of 65% or higher to pass*	
Reading list	*1. Robert Boylestad and Louis Nashelsky. 2012. Electronic Devices and Circuit Theory 11th Ed. Pearson New International Edition* *2. Neil Storey, 2017. Electronics: A Systems Approach, 6th edition. Pearson New International Edition.* *3. John Birds, 2021. Electrical and Electronic Principles and Technology, Third Edition 7th Edition, Routledge.* *4. Gerado Mesias, 2017. Electronics: Theory and Practice 1st ed, Routledge*	