Module Handbook

Name of Module	Basic Electronics 2
Level of Module	Undergraduate (S-1)
Code	
Subtitle	
Subject of Courses	
Semester/Year	4/2
Coordinator	Drs. Imam Sucahyo, M.Si.
Lecturers	1. Drs. Imam Sucahyo, M.Si. 2. Endah Rahmawati, M.Si 3. Abd. Kholiq, S.Pd., M.T. 4. Dzulkiflih, S.Si. M.T. 5. Meta Yantidewi, M.Si.
Language	Bahasa Indonesia
Classification in Curriculum	Mata Kuliah Wajib
Learning Format/ duration per week	Per week: 2 hours of lecturing (1 hour = 50 minutes))
Workload	2 hours of lecturing, 2 hours of structured task for 15 weeks = total 30 hours of lecturing/semester
Credit System Unit	2
Prerequisites	Basic Electronics 1
Learning Outcomes	1. Students are able to analyse the working principles of the BJT transistor by providing some relevant examples. 2. Students are able to analyse the working principles of field effect transistors (JFETs) by providing some relevant examples. 3. Students are able to analyse the operational amplifier working principle (op-amp) by giving some relevant examples. 4. Students are able to explain the basics of digital electronics by providing some relevant examples. 5. Students are able to apply (basic concepts of basic electronics 2) in accordance with the development of science and technology and are relevant to the demands of competence in national education standards
Content	The Basic Electronics 2 course covers the working principles and application of BJT transistors, JFET field effect transistors, op-amp characteristics and circuits, and the basic material of digital electronics.
Attributed soft skill	High-level proficiency in basic electrical concepts 2 Ability to apply basic electrical concepts 2 Ability to solve problems regarding basic electrical concepts 2 Ability to work together in class assignment groups (teamwork)

Learning Achievement	Students are considered competent and pass if they get at least a minimum test score of 68 (SS and S), and structured activities (Assignments / A) and participatory activities (P) The final grade (FG) is calculated according to the formula: FG = $\dfrac{(2xP)+(3xA)+(2xSS)+(3xS)}{10}$ Convert the 0-100 scale value to a 0-4 scale and the letters are arranged as follows.
	<table><tr><th>Alphabet</th><th>Number</th><th>Interval</th></tr><tr><td>A</td><td>4,00</td><td>85 ≤ A < 100</td></tr><tr><td>A-</td><td>3,75</td><td>80 ≤ A- < 85</td></tr><tr><td>B+</td><td>3,50</td><td>75 ≤ B+ < 80</td></tr><tr><td>B</td><td>3,00</td><td>70 ≤ B < 75</td></tr><tr><td>B-</td><td>2,75</td><td>65 ≤ B- < 70</td></tr><tr><td>C+</td><td>2,50</td><td>60 ≤ C+ < 65</td></tr><tr><td>C</td><td>2,00</td><td>55 ≤ C < 60</td></tr><tr><td>D</td><td>1,00</td><td>40 ≤ D < 55</td></tr><tr><td>E</td><td>0,00</td><td>0 ≤ E < 4</td></tr></table>
Media	1. PPT 2. Simulation of Electronics Application (Electronic workbanch, Circuit 3. Basic Electronics Practicum KIT
References	[1]. Sutrisno. 1978. **Elektronika 2. Teori dan Penerapannya**. Penerbit ITB Bandung. [2]. Tooley, M. 2006. **Electronics Circuit: Fundamentals and Applications**. Third Edition. Elesevier Ltd. [3]. Boylestad, R., and Nashelsky, L. **Electronics Devices and Circuits: Theory**. Seventh Edition. Prentice Hall. [4]. Floyd, T. L. 2012. **Electronics Devices**. Prentice Hall. [5]. Rahmawati, E., Sucahyo, I., dan Kholiq, A. 2017. **Hand out Elektronika Dasar 2** [6]. Rahmawati, E., Sucahyo, I., dan Kholiq, A. 2017. **Panduan Praktikum Elektronika Dasar 2**
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