Module Description

Module name	Course Module
Module level, if applicable	Bachelor of Electrical Engineering
Code, if applicable	5115-083-2
Subtitle, if applicable	-
Course, if applicable	Rangkaian Logika (Logic Circuit)
Semester(s) in which the module istaught	3rd semester (odd semester)
Person responsible for the module	Lecturer of Course
Lecturer	Mochammad Djaohar., M.Sc.
Language	Indonesian
Relation to Curriculum	This course is a compulsory course and offered in the 2rd semester (odd semester)
Type of teaching, contact hours	The teaching methods used in this course are: - Lectures (i.e., group investigations, small group discussions, exercises , and simulation using software) - Structured assignments (i.e., essays and case studies) The class size for lecture is 30 students. Contact hours for lecture is 27 hours, assignments (structured tasks) is 32 hours and study independently 32 hours
Workload	For this course, students are required to meet a minimum of 87 hours in one semester, which consist of: - 23 hours for lecture - 32 hours for structured assignments - 32 hours for study independently
Credit points	2 credit points (equivalent with 3 ECTS)
Requirements according to the examination regulations	Students must have attended all classes and submitted all class assignments that are scheduled before the final tests.
Recommended prerequisites	-

Module objectives/intended learning outcomes	After completing the course and given with this case: **Course Learning Objectives (CLO):** 1. Formulating the completion of operations and conversions of the number system (25) 2. Designing a system using logic gates (30) 3. Applying Simple Logic Circuits, Arithmetic Circuits, Decoder and Encoder, Multivibrator and Flip-flop Sequential Logic Circuits, Counters, Registers, Multiplexers and Demultiplexers in making tools as a final assignment assessment course (45)
Content	**Students will learn about:** equip students to master the theory of Number Systems, Basic Number Conversion Systems, Number System Operations, Logic Gates, Boolean Algebra and Karnough Map, Logic Circuit Combinations, Basic System Design using logic gates, Simple Logic Circuit Applications, Arithmetic Circuits, Decoder and Encoder , Multivibrator and Flip-flop Sequential logic circuits, counters, registers, multiplexers and demultiplexers
Forms of Assessment	Assessment is carried out based on written examinations, assessment/evaluation of the learning process and performance with the following components: Structured tasks: 40% ; Mid Test : 30% Final Test (final project): 30 %
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the classdue to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. **Form of examination:** - Written exam: Essay - Final project evaluation
Media employed	Direct Whiteboard and Power Point Presentation.
Reading list	**Main References:** 1. Ronald J. Tocci, Digital Systems Principles and Applications, Prentice-Hall 2. M. Morris Mano, Digital Design, Prentice-Hall