

**UNDERGRADUATE PROGRAM IN COMPUTER SCIENCE
DEPARTMENT OF COMPUTER ENGINEERING
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY**

Module name	Electrical Technology Competency	
Module level	Undergraduate	
Code	EC184802	
Courses (if applicable)	Electrical Technology Competency	
Semester	8 / Spring (Genap)	
Contact person	<i>Ahmad Zaini, ST., MT</i>	
Lecturer	<i>Ahmad Zaini, ST., MT</i>	
Language	[Indonesia / English]	
Relation to curriculum	Undergraduate degree program, <i>mandatory, 8th</i> semester.	
Type of teaching, contact hours	Lecture, < 60 students, 170 Minutes * 3 SKS	
Workload	<ol style="list-style-type: none"> 1. <i>Laboratory activities: 3 x 50 = 150 minutes (2.5 hours) per week.</i> 2. <i>Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week.</i> 3. <i>Private study: 3 x 60 = 180 minutes (3 hours) per week.</i> 	
Credit points	3 credit points (sks).	
Requirements according to the examination regulations	<p>A student must have attended and completed all laboratories activities.</p> <p>A Student must have submitted their laboratory activities and final project report.</p>	
Mandatory prerequisites	(EW184003) Electric Circuits, (EC184302) Telecommunication Systems, (EC184303) Electronic Circuits.	
Learning outcomes and their corresponding PLOs	<p>CLO 1. Students could explain the concept of Electric Circuits, Telecommunication Systems, Electronic Circuits.</p> <p>CLO 2. Students could prove the concept of Electric Circuits, Telecommunication Systems, Electronic Circuits into laboratories activities</p> <p>CLO 3. Students could operate some analogous and digital measuring tools.</p> <p>CLO 4. Students could desain and manipulate to solve some case related to Electric Circuits, Telecommunication Systems, Electronic Circuits</p> <p>CLO 5. Students could work as a team.</p>	<p>PLO 3</p> <p>PLO 8 PLO 4</p> <p>PLO 5 PLO 6</p> <p>PLO 6</p> <p>PLO 1 PLO 2</p>

Content	<p>In this course, students will learn to prove the concept of Electric Circuits, Telecommunication Systems, Electronic Circuits into some laboratory activities.</p> <p>The student also learn to solve some engineering problem base on the concept of Electric Circuits, Telecommunication Systems, Electronic Circuits.</p>
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> • <i>Laboratory activities</i> • <i>Assignment</i> • <i>Laboratory activities report</i> • <i>Laboratory Final Project</i>
Media employed	<i>LCD, whiteboard, computer, laboratory modul</i>
Reading List	<ol style="list-style-type: none"> 1. Electric Circuits, Lecture Notes. 2. Pujiono, Rangkaian Listrik, Graha Ilmu, 2010. 3. Stallings, W., "Data and Computer Communications", 10th Edition. Upper Saddle River, NJ, USA, Prentice Hall, 2014 4. Muhammad Rivai, 2018. Diktat: Rangkaian Elektronika. 5. Robert L Boylestad and Louis Nashelsky, 2012. Electronic Devices and Circuit Theory, Prentice Hall, Inc