

Module Description

Module name	Course Module
Module level, if applicable	Bachelor of Electronics Engineering
Code, if applicable	5115-086-3
Subtitle, if applicable	
Course, if applicable	Industrial Electronics
Semester(s) in which the module is taught	V
Person responsible for the module	Lecturer of Course
Lecturer	Dr.Aodah Diamah,M. Eng.
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 5 th semester.
Type of teaching, contact hours	<p>Teaching methods used in this course are:</p> <ul style="list-style-type: none"> - Lecture (i.e., group investigation, small group discussion, casestudy, and video-based learning) - Structured assignments (i.e., essays and case study) <p>The class size for lecture is 30 students. Contact hours for lecture is 23 hours, assignments are 28 hours</p>
Workload	<p>For this course, students required to meet a minimum of 91 hours in one semester, which consist of:</p> <ul style="list-style-type: none"> - 27 hours for lecture, - 32 hours for structured assignments, - 32 hours for private study
Credit points	2 credit points (equivalent with 2.88 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	Students must have attended all classes and submitted all class assignments that are scheduled before the final tests.

<p>PLO-CLO-ILO</p>	<p>After completing the course and given with this case:</p> <p>Course Learning Objectives (CLO1): Mahasiswa mampu memahami prinsip-prinsip dasar peralatan elektronika yang digunakan dalam industri (K1) (15)</p> <p>Course Learning Objectives (CLO2): Mahasiswa mampu memahami prinsip-prinsip dasar komponen elektronika yang digunakan dalam industri (K1) (15)</p> <p>Course Learning Objectives (CLO3): Mahasiswa mampu menerapkan prinsip-prinsip dasar peralatan dan komponen elektronika yang digunakan dalam industri (K2, S1, S3, C1) (70)</p> <p>Program Learning Outcome (PLO3): Menerapkan kompetensi teknik elektronika untuk memecahkan masalah keteknikan</p> <p>Knowledge (K1): Menerapkan matematika, ilmu dasar dan teknik dasar untuk merancang dan menganalisis untuk memecahkan masalah di bidang teknik elektronika.</p> <p>Knowledge (K2): Untuk menerapkan prinsip-prinsip teknik elektronik untuk memecahkan masalah dalam sistem teknik elektronik</p> <p>Engineering and Education Skill (S2): Mampu menganalisis prinsip kerja dan penerapan sistem rekayasa elektronik</p> <p>Engineering and Education Skill (S3): Mampu mencari alternatif solusi dan pemecahan masalah di bidang teknik elektronika.</p> <p>Competence (C2): Mampu mengelola dan mengembangkan proses, sistem operasi, dan peralatan dengan mempertimbangkan dampak teknis dan nonteknis dari kegiatan industri di bidang teknik elektronika.</p>
<p>Content</p>	<p>Students will learn about: Matakuliah ini bertujuan untuk memahami prinsip-prinsip dasar peralatan dan komponen elektronika yang digunakan dalam industri. Materi perkuliahan meliputi pengantar teknik elektronika industri; komponen semikonduktor daya: dioda, SCR, TRIAC, DIAC, Power BJT, Power MOSFET, IGBT; rangkaian penyearah dioda, rangkaian pentrigger, penyearah terkendali, pengaturan tegangan bolak-balik, chopper dc, rele dan saklar statis.</p>

Forms of Assessment	Assessment is carried out based on written examinations, assessment/evaluation of the learning process and performance with the following components: Sikap:10%; Keterampilan Umum: 5%; Membuat Program: 10%; UTS, UAS, Projek dan tugas individu:75%
Study and examination requirements and forms of examination	<p>Study and examination requirements:</p> <ul style="list-style-type: none"> - 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 class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. <p>Form of examination: Written exam: Essay</p>
Media employed	Direct Whiteboard, Google classroom, Tutorial Video by Youtube and Power Point Presentation.
Reading list	