

MODULE HANDBOOK

Course:	Electronics I (Experimental)
Module Level:	Undergraduate
Code:	FIE211
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/Term:	3 rd / Second Year
Module Coordinator(s):	Drs. Bambang Suprijanto, M.Si.
Lecturer(s):	Drs. Bambang Suprijanto, M.Si. and Yoseph G., S.Si., M.T; Francky
Language:	Bahasa Indonesia
Classification within the Curriculum:	Compulsory Course / Elective Course
Teaching format / class hours per week during semester:	1 hours of lectures (50 min / hour)
Workload:	2 hours of doing worksheet and pretest preparation, 2 hours of laboratory work, 2 hours of group discussion, searching literature and writing , 13 weeks per semester, and total of 78 hours per semester ~ 2,6 ECTS*
Credit Points:	1
Requirement(s):	(FID 101) Basic Physics 1 and (FID 104) Basic physics II
Learning Goals/Competencies:	<p>General Competences (Knowledge): After following this course, the students are able to understand the basic concepts of electronics, current, voltage, the characteristics of active and passive components, oscillators and various boosters.</p> <p>Specific Competences (Skills):</p> <ol style="list-style-type: none"> 1. Students are able to use electrical instruments which are for measuring electrical voltage and electrical current, such as analog multimeter and digital multimeter. 2. Students are able to operate the oscilloscope for measuring the voltage and frequency of the AC mains voltage. 3. Students are able to operate signal generator as the source of the wave. 4. Students are able to design amplifier circuit and calculate the value of gain.
Contents:	Introduction of analog electronics and Experiment is about measuring instrument and passive components, RC circuit In the time function, the RC circuit in the function frequency, diodes circuit, rectifier and power supply, transistor amplifiers of the common emitter, operational amplifiers, and oscillator circuit.
Soft Skill Attribute:	Effort and ethic
Study/Exam Achievements:	<p>Students are considered competent and eligible to pass the course upon obtaining at least 55.</p> <p>Final exam practice 40%; soft skill 10%, and daily practical value 50%</p>

	<p>Final grade is defined as follow:</p> <p>A : 75 - 100</p> <p>AB : 70 - 74.99</p> <p>B : 65 - 69.99</p> <p>BC : 60 - 64.99</p> <p>C : 55 - 59.99</p> <p>D : 40 - 54.99</p> <p>E : 0 - 39.99</p>
Form of Media:	Laboratory equipments
Learning Methods:	Practical in laboratory, discussion, demonstration of the model structure
Literature(s):	<ol style="list-style-type: none"> 1. Petunjuk Praktikum Elektronika Analog , Jurusan Fisika FMIPA UNAIR. 2. Sutrisno, 1986, Elektronika : Teori dasar dan penerapannya, Jilid 1, Bandung, penerbit ITB, Bandung. 3. Sutrisno 1987, Elektronika : Teori dasar dan penerapannya, Jilid 2, Bandung, penerbit ITB, Bandung.
Notes:	<p>*Total ECTS = {(total hours workload × 50 min) / 25 hours</p> <p>Each ECTS is equals with 25 hours.</p>