

## MODULE HANDBOOK

Course:	<b>Digital Electronics</b>
Module Level:	Undergraduate
Code:	FIE204
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/Term:	4 <sup>th</sup> / Second Year
Module Coordinator(s):	Yoseph G., S.Si. M.T,
Lecturer(s):	Yoseph G., S.Si. M.T., Drs.Tri Anggono Prijo; Dr.Riries Rulaningtyas, S.T. M.T. and Drs. Bambang Suprijanto, M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / <del>Elective Course</del>
Teaching format / class hours per week during semester:	2 hours of lectures (50 min / hour)
Workload:	2 hours of lectures, 2 hours of structural activities, 2 hours of individual study, 13 weeks per semester, and total of 78 hours per semester ~ 2.6 ECTS*
Credit Points:	2
Requirement(s):	(FID 104) Basic Physics II
Learning Goals/Competencies:	<p><b>General Competence (Knowledge):</b> After following this course, students are able to explain the principles of digital electronics and digital circuit which is the application of digital electronics.</p> <p><b>Specific Competence:</b></p> <ol style="list-style-type: none"> <li>1. Students are able to relate theory and application about digital electronics, basic logic gates, advanced logic gates, simplification of logic circuits.</li> <li>2. Students are able to know code conversion, flip-flop, counter, shift registers, using of digital integrated circuits, and the conversion of digital, analog, sensor digital systems.</li> </ol>
Contents:	This course discusses topics about basic knowledge of digital electronics, basic logic gates, advanced logic gates, simplification of logic circuits, code conversion, flip-flop, counter, shift registers, using of digital integrated circuits, and the conversion of digital, analog, sensor digital systems.
Soft Skill Attribute:	Discipline and honesty
Study/Exam Achievements:	<p>Students are considered competent and eligible to pass the course upon obtaining at least 55. Final Exam Practice 40%; soft skill 10%, and daily practical value 50%.</p> <p>Finalgrade is defined as follow:</p> <p>A : 75 – 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E : 0 - 39.99</p>

Learning Methods:	Lecture, discussion, tutorial
Form of Media:	Powerpoint slides, LCD projectors and whiteboards
Literature(s):	<ol style="list-style-type: none"> <li>1. Tokheim, R.L.1990, <i>Digital Electronics</i>: second edition, McGraw-Hill, Inc, New York.</li> <li>2. Tokheim, R.L.1990, <i>Principles of Digital Electronics</i>, McGraw-Hill, Inc, New York.</li> </ol>
Notes:	<p>*Total ECTS=<math>\frac{\text{total hours workload} \times 50 \text{ min}}{60 \text{ min}} / 25 \text{ hours}</math>  Each ECTS is equals with 25 hours</p>