

Modul Description

Module name	Course Module
Module level, if applicable	Bachelor of Electronics Engineering
Code, if applicable	5215-042-2
Subtitle, if applicable	-
Course, if applicable	Switching Technique
Semester(s) in which the module istaught	VI
Person responsible for the module	Lecturer of Courses
Lecturer	Dr. Baso Maruddani, S.T., M.T.
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course for Communication Electronics Specialization and offered in the 6 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, case study, and video-based learning) - Structured assignments (i.e., essays and case study) - Practice (i.e., computer simulation and case study in laboratorium) <p>The class size for lecture is 30 students. Contact hours for lecture is 27 hours, assignments are 32 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 3.0 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-ILO-CLO</p>	<p>After completing the course and given with this case:</p> <p>Course Learning Objectives (CLO1): Mahasiswa mampu memahami jenis-jenis switching analog and digital serta kelebihan dan kekurangannya. (K2, S2) (20)</p> <p>Course Learning Objectives (CLO2): Mahasiswa mampu menganalisis fungsi dan cara kerja switching dalam mengirimkan data antar node. (S2, S3) (40)</p> <p>Course Learning Objectives (CLO3): Mahasiswa mampu mengaplikasikan salah satu/lebih teknik switching dalam suatu sistem untuk mendapatkan kinerja yang lebih baik. (S3, C1) (40)</p> <p>Program Learning Outcomes (PLO3): Menerapkan kompetensi teknik elektronika untuk memecahkan masalah keteknikan</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 (C1): Menerapkan teknologi baru di bidang rekayasa dengan mempertimbangkan standar teknis, aspek kinerja, keandalan, penerapan, dan keberlanjutan</p>
<p>Content</p>	<p>Students will learn about: Prinsip-prinsip teknik penyambungan pada sentral telepon analog dan digital; multiplexing dan demultiplexing, FDM, PCM, DPCM dan TDM; hubungan telepon; topologi jaringan; penomoran; pensinyalan dan teori lalu lintas</p>
<p>Forms of Assessment</p>	<p>Assessment is carried out based on written examinations, assessment/evaluation of the learning process and performance with the following components: Presence and Activity: 10%; Structured tasks: 10%; Practical tasks: 10%; Mid Test : 30%; Final Test: 40%</p>

Study and examination requirements and forms of examination	Study and examination requirements: <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. Form of examination: Written exam: Essay
Media employed	Direct Whiteboard and Power Point Presentation.
Reading list	<ol style="list-style-type: none"> 1. Constantine A. Balanis, Antenna Theory: Analysis and Design, Third Edition. New York: John Wiley and Sons, 2005 2. Krauss, Antennas. Singapor: McGraw Hill International Editions, 1998 3. D.H.Staelin, AW Morgenthaler, Jing Au Kong, Electromagnetic Waves. New Jersey: Prentice-Hall Inc, 1994 4. Mudrik Alaydrus, Antena Prinsip dan Aplikasi. Yogyakarta: Graha Ilmu, 2011 5. N.M. Adriansyah, Modul Sistem Antena. Bandung: STT Telkom, 2001 6. N.N. Rao, Elements of Engineering Electromagnetic. New Jersey: Prentice-Hall Inc, 2000. 7. RE. Collin, Antennas and Radiowave Propagation. Singapore: McGraw Hill International Editions, 1985