

Modul Description

Module name	Course Module
Module level, if applicable	Bachelor of Electronics Engineering
Code, if applicable	5215-083-2
Subtitle, if applicable	-
Course, if applicable	Optical Communication System
Semester(s) in which the module istaught	VI
Person responsible for the module	Lecturer of Courses
Lecturer	Dr. Arum Setyowati, S.Pd., M.T.
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a mandatory 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 3.00 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>Module objectives/intended learning outcomes</p>	<p>After completing the course and given with this case:</p> <p>Course Learning Objectives (CLO1): Mahasiswa mampu memahami karakteristik fiber optik yang digunakan dalam sistem telekomunikasi (K1) (10)</p> <p>Course Learning Objectives (CLO2): Mahasiswa mampu menganalisis karakteristik fiber optik yang digunakan dalam sistem telekomunikasi (K1, S2, S3, C1) (20)</p> <p>Course Learning Objectives (CLO3): Mahasiswa mampu menganalisis performansi link komunikasi fiber optik (K1, S2, S3, C1) (20)</p> <p>Course Learning Objectives (CLO4): Mahasiswa mampu menganalisis pengaruh material dan mode-mode transmisi optik (K1, S2, S3, C1) (20)</p> <p>Course Learning Objectives (CLO5): Mahasiswa mampu menganalisis redaman dan teknik-teknik modulasi/demodulasi pada komunikasi fiber optik. (K1, S2, S3, C1) (30)</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>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: Mengetahui dan mampu menganalisis karakteristik fiber optik yang digunakan dalam sistem telekomunikasi, Mampu menganalisis performansi link komunikasi fiber optik, pengaruh material dan mode-mode transmisi optik, redaman, teknik-teknik modulasi/demodulasi pada komunikasi fiber optik.</p>

Forms of Assessment	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: 20%; Mid Test: 30%; Final Test: 40%
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 and Power Point Presentation.
Reading list	