

Module Description

Module name	Course Module
Module level, if applicable	Bachelor of Electronics Engineering
Code, if applicable	5215-074-3
Subtitle, if applicable	-
Course, if applicable	System Multimedia
Semester(s) in which the module istaught	VI
Person responsible for the module	Lecturer of Course
Lecturer	Vina Oktaviani, S.Pd., M.T.
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a mandatory course for Audio Video 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, casestudy, and video based learning) - Structured assignments (i.e., essays and case study) - Practice (i.e., computer simulation and case study in laboratory) <p>The class size for lecture is 30 students. Contact hours for lecture is 40 hours, assignments is 48 hours</p>
Workload	<p>For this course, students are required to meet a minimum of 136 hours in one semester, which consist of:</p> <ul style="list-style-type: none"> - 40 hours for lecture, - 48 hours for structured assignments, - 48 hours for private study,
Credit points	3 credit points (equivalent with 4.5 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 konsep dan penerapan multimedia serta karakteristik dan representasi berbagai jenis media digital (K1) (20)</p> <p>Course Learning Objectives (CLO2): Mahasiswa mampu merancang aplikasi multimedia (K2, S1, S3, C1) (35)</p> <p>Course Learning Objectives (CLO3): Mahasiswa mampu mengembangkan produk multimedia dengan memanfaatkan perangkat-perangkat lunak multimedia (K1, K2, S1, S3, C1) (45)</p> <p>Program Learning Outcome (PLO2): Menerapkan ilmu-ilmu dasar untuk memecahkan masalah teknik elektronika</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 (S1): Mampu merancang prinsip dan aplikasi 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>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>
--	--

Content	<p>Students will learn about:</p> <p>The concept and application of multimedia as well as the characteristics and representation of various types of digital media (text, image, sound, video, animation and web). The theoretical material discusses the basic principles of multimedia, representation (file format, encoding, and compression) of various types of media, multimedia application design and development, and the concept of hypermedia. The practical material focuses on developing multimedia products by utilizing multimedia software, namely; image processing, sound editor, video editor, animation developer, web design, multimedia programming and others.</p>
Forms of Assessment	<p>Assessment is carried out based on written examinations, assessment/evaluation of the learning process and performance with the following components: Structured tasks: 30% ; Mid Test : 35% Final Test: 35%</p>
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	<p>Direct Whiteboard and Power Point Presentation.</p>
Reading list	<ol style="list-style-type: none"> 1. Ze-Nian Li and Mark. S. Drew, Fundamentals of Multimedia, Prentice-Hall, 2003. ISBN 0130618721.\ 2. K. Sayood, Introduction to Data Compression, Morgan-Kauffman, 2000. ISBN 1558605584. 3. G. Lu, Multimedia Database Management Systems, Artech House Publishers, 1999. ISBN 0890063427. 4. W.C. Hardy, QoS Measurement and Evaluation of Telecommunications Quality of Service, Wiley, 2001. ISBN 0470845910. 5. S. Katzenbeisser dan F.A.P Petitcolas, Information Hiding Techniques for Steganography and Digital Watermarking, Artech House Publisher, 2000. ISBN 1580530354 6. M. Bosi dan R.E. Goldberg, Introduction to Digital Audio Coding and Standards, Springer, 2006. ISBN 1402073571. 7. K. Jack, Video Demystified, 4th ed., Elsevier, 2005. ISBN 0750678224.