

Modul Description

Module name	Course Module
Module level, if applicable	Bachelor of Electronics Engineering
Code, if applicable	5215-014-2
Subtitle, if applicable	-
Course, if applicable	Computer Programming II
Semester(s) in which the module istaught	IV
Person responsible for the module	Lecturer of Course
Lecturer	Dr.Aodah Diamah,M.Eng. ; Dr. Baso Maruddani, M.T.
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 4 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 27 hours, assignments is 32 hours</p>
Workload	<p>For this course, students are 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 2.88 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-CLO-ILO</p>	<p>After completing the course and given with this case:</p> <p>Course Learning Objectives (CLO1): Mahasiswa mampu memahami konsep dasar pemrograman komputer yang kokoh dan terbuka dalam menghadapi perkembangan di bidang pemrograman komputer (K1) (20)</p> <p>Course Learning Objectives (CLO2): Mahasiswa mampu merancang pemrograman komputer menggunakan bahasa pemrograman imperatif yaitu C pada Matlab (K2, S1, S3, C1) (30)</p> <p>Course Learning Objectives (CLO3): Mahasiswa mampu menerapkan materi unsur-unsur lanjut pemrograman dalam penyelesaian kasus algoritma dasar seperti kasus rekursif deret fibonacci dan menara hanoi (K2, S1, S3, C1, C2) (50)</p> <p>Program Learning Outcomes (PLO3): Menerapkan kompetensi teknik elektronika untuk memecahkan masalah keteknikan</p> <p>Knowledge (K1): To apply mathematics, basic science and basic engineering to design and analysis for solving problems in electronics engineering.</p> <p>Knowledge (K2): Untuk menerapkan prinsip-prinsip teknik elektronika untuk memecahkan masalah dalam sistem teknik elektronika</p> <p>Engineering and Education Skill (S1): Mampu merancang prinsip dan aplikasi sistem rekayasa elektronika</p> <p>Engineering and Education Skill (S2): Mampu menganalisis prinsip kerja dan penerapan sistem rekayasa elektronika</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: Mata kuliah ini adalah kelanjutan dari mata kuliah Pemrograman Komputer I, bertujuan untuk memberikan konsep dasar pemrograman komputer yang kokoh dan terbuka dalam</p>

	<p>menghadapi perkembangan di bidang pemrograman komputer. Bahasa pemrograman komputer yang digunakan adalah bahasa pemrograman imperatif yaitu C atau Pascal. Materi yang diberikan, baik teori atau praktek adalah materi unsur-unsur lanjut pemrograman, yaitu: larik multidimensi, operasi string, operasi file, tipe data buatan (abstract data type), pointer, prosedur dan fungsi lanjut, serta penyelesaian kasus algoritma dasar seperti kasus rekursif deret fibonacci dan menara hanoi.</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: 50% ; Quiz 10% ; Mid Test : 15% Final Test: 25%</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>Computer/Laptop, Direct Whiteboard and Power Point Presentation.</p>
Reading list	<ol style="list-style-type: none"> 1. Attaway, Stormy, 2017 Matlab: A Practical Introduction to Programming and Problem Solving, 4th Edition. Boston : Todd Green. 2. Vick, Brian. 2000. Matlab Command and Function. Virginia: Virginia Tech. 3. Gerritsen, M. 2006. A Brief Introduction to Matlab. New Jersey: Pearson Education, Inc.