Modul Description

Module name	Course Module
Module level, if applicable	Bachelor of Electronics Engineering
Code, if applicable	5115-084-2
Subtitle, if applicable	-
Course, if applicable	Computer Programming I
Semester(s) in which the module istaught	III
Person responsible for the module	Lecturer of Course
Lecturer	Dr. Baso Maruddani, MT
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 3th semester.
Type of teaching, contact hours	Teaching methods used in this course are: - 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) The class size for lecture is 30 students. Contact hours for lecture is 27 hours, assignments is 32 hours
Workload	For this course, students required to meet a minimum of 91 hours in one semester, which consist of: - 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.

Module objectives/intended learning outcomes	After completing the course and given with this case: **Course Learning Objectives (CLO1):** Mahasiswa mampu memahami dasar pemrograman komputer, perkembangan komputer dan pemanfaatnya pada bidang teknik elektro, Organisasi dan Arsitektur Komputer, Bahasa Pemrograman Komputer, Pemrograman terstruktur dan Pemprograman Berorientasi Objek (OOP), Algoritma pemrograman, Teori dan Praktik Pemrograman sesuai dengan kebutuhan bidang teknik elektro yang mencakup Pengenalan Elemen-elemen program, Input dan Output, Perulangan, Seleksi Kondisi, Operasi String, Prosedur dan Fungsi, Array, Rekursi, Skalar, Record dan Pointer (K1) (20) **Course Learning Objectives (CLO2):** Mahasiswa mampu menganalisa masalah dan pemecahannya menggunakan bahasa pemrograman (K1, S2, S3, C2) (40) **Course Learning Objectives (CLO3):** Mahasiswa mampu melakukan pengembangan diri pada bahasa pemrograman sesuai dengan perkembangan teknologi perangkat keras dan lunak (A1, K2, S1, S3, C1) (40) **Program Learning Outcomes (PLO2):** Menerapkan ilmu-ilmu dasar untuk memecahkan masalah teknik elektronika **Program Learning Outcomes (PLO3):** Menerapkan kompetensi teknik elektronika untuk memecahkan masalah keteknikan **Attitude (A1):** Memiliki kejujuran dan tanggung jawab untuk berkarir secara profesional serta menjaga etika profesi **Knowledge (K1):** Menerapkan matematika, ilmu dasar dan teknik dasar untuk merancang dan menganalisis untuk memecahkan masalah di bidang teknik elektronika. **Engineering and Education Skill (S1):** Mampu merancang prinsip dan aplikasi sistem rekayasa elektronik **Engineering and Education Skill (S2):** Mampu menganalisis prinsip kerja dan penerapan sistem rekayasa elektronik **Engineering and Education Skill (S3):** Mampu mencari alternatif solusi dan pemecahan masalah di bidang teknik elektronika.

	Competence (C1): Menerapkan teknologi baru di bidang rekayasa dengan mempertimbangkan standar teknis, aspek kinerja, keandalan, penerapan, dan keberlanjutan **Competence (C2):** Mampu mengelola dan mengembangkan proses, sistem operasi, dan peralatan dengan mempertimbangkan dampak teknis dan nonteknis dari kegiatan industri di bidang teknik elektronika.
Content	**Students will learn about:** Basic function command in Matlab, advance function in Matlab, algorithm in pattern recognition program like face recognition and number-plate recognition.
Forms of Assessment	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%
Study and examination requirements and forms of examination	**Study and examination requirements:** - 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 classdue 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	Computer/Laptop, Direct Whiteboard and Power Point Presentation.
Reading list	