Module Description

Module name	Software Engineering I
Module level, if applicable	Bachelor of Informatics
Code, if applicable	211D4222
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	4th
Person responsible for the module	Dr. Ir. Zahir Zainuddin, M.Sc
Lecturer	1. Dr. Ir. Zahir Zainuddin, M.Sc 2. Elly Warni, ST., M.Sc 3. Muhammad Alief Fadhal Imran Oemar., ST., M.Sc
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 4th semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [simulation], [case study], [Problem-based learning]. Teaching forms: [lecture], [tutorial]. CH : 08.00 - 16.00
Workload	For this course, students are required to meet a minimum of 90.75 hours in one semester, which consist of: - 26.67 hours for lecture, - 32 hours for structured assignments, - 32 hours for private study.
Credit points	2 credit points (equivalent with 3.4 ECTS)

Requirements according to the examination regulations	Students have participated in at least 80% of the learning activities (Academic Regulations, Chapter VII)
Recommended prerequisites	-
Module objectives/intended learning outcomes	**Intended Learning Outcomes (ILO):** After completing the course, Students are able: **ILO 1 : Have knowledge of basic Computing Science** which includes basic theories and Concepts of computer science, Mathematics and Statistics, Programming Algorithms, Software Engineering and Information Systems. **ILO 3 :** Apply knowledge of computing and other related disciplines to **analyze and identify solutions** to any computing-based problem **Course Learning Objective (CLO):** After following the Software Engineering course for 1 semester, students are able to **understand** theoretical Concepts of informatics knowledge in the field of software engineering independently, of good quality and measurable and able to analyze and design quality software. In software engineering I, students are able to **formulate problem solving** as outlined in the form of computational design requirements analysis documentation. ILO 1 =>CLO 1 : students are able to **understand** theoretical Concepts of informatics knowledge in the field of software engineering independently, of good quality and measurable and able to analyze and design quality software ILO 3 =>CLO 2 : students are able to **formulate problem solving** as outlined in the form of computational design requirements analysis documentation.
Content	Students will learn about : 1. Software and Software Engineering 2. Process Models 3. Agile Development 4. Requirements Engineering and Requirements Analysis 5. Design Concepts 6. Software Architecture 7. Interface Analysis and Design Pattern

	8. Study Case
Forms of Assessment	Assessment techniques: [observation], [written test]. Assessment forms: [quiz], [midterm exam], [final term exam], [assignment]. Quiz = 50%, Midterm exam = 20% Finalterm exam = 20%, Assignment =10% CLO 1 => ILO 1: 90% (Quiz, Midterm exam, and Final term exam: written test) CLO 2 => ILO 3: 10% (Assignment: observation)
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 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	Video Conference, Video and Power Point Presentation.
Reading list	**Main :** 1. Software Engineering A Practitioner's Approach – Seventh Edition, Pressman. 2010 **Support :** 1. Brian Hambling et al., Software Testing – An ISTQB-ISEB Foundation Guide 2nd Edition, BCS The Chartered Institute for IT, 2010 2. Kathy Schwalbe, Managing Information Technology Projects 6th Edition, Course Technology, Cengage Learning, 2010