

**UNDERGRADUATE PROGRAM IN COMPUTER SCIENCE
DEPARTMENT OF COMPUTER ENGINEERING
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY**

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| Module name | Software Engineering | |
| Module level | Undergraduate | |
| Code | EC184401 | |
| Courses (if applicable) | Software Engineering | |
| Semester | 4 / Spring (Genap) | |
| Contact person | Dr. I Ketut Eddy Purnama, S.T, M.T. | |
| Lecturer | Dr. I Ketut Eddy Purnama, S.T, M.T. | |
| Language | Indonesia | |
| Relation to curriculum | Undergraduate degree program, mandatory, 4 th semester. | |
| Type of teaching, contact hours | Lecture, < 60 students, 170 MENIT * SKS | |
| Workload | <ol style="list-style-type: none"> 1. Lectures: 2 x 50 = 100 minutes (1.67 hours) per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Private study: 2 x 60 = 120 minutes (2 hours) per week. | |
| Credit points | 2 credit points (sks). | |
| Requirements according to the examination regulations | A student must have attended at least 75% of the lectures to sit in the exams. | |
| Mandatory prerequisites | | |
| Learning outcomes and their corresponding PLOs | <p>CLO-1 Students are able to recognize and explain the process of system analysis</p> <p>CLO-2 Students are able to explain the technique of system design.</p> <p>CLO-3 Students are able to describe the steps of creating a system.</p> <p>CLO-4 Students are able to solve system problems with Unified Modeling Language</p> <p>CLO-5 Students are able to select and design a network-based system</p> | <p>PLO-3 PLO-4</p> <p>PLO-3 PLO-4</p> <p>PLO-3 PLO-4</p> <p>PLO-5</p> <p>PLO-6</p> |
| Content | In this course, students will study how the system problem is analyzed, then designed and engineered. Topics that will be studied include: the history and development of system design including: System Context Diagram, System Flow, System Specification, System Data Dictionary, and Unified Modeling Language, Steps for system building, and system architecture design. | |

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| Study and examination requirements and forms of examination | <ul style="list-style-type: none"> • In-class exercises • Quiz 1 and 2 • Assignment 1, 2, 3 • Mid-term examination • Final examination |
| Media employed | LCD, whiteboard, websites (myITS Classroom). |
| Assessments and Evaluation | <p>CO-1: Question no 1 in midterm exam (15%) CO-2: Question no 2 in midterm exam (15%) CO-3: Question no 3 in midterm exam (15%), quiz 1 (5%) CO-4: Assignment 1 (5%), question no 4 in midterm exam (15%), Quiz 2 (5%) CO-5: Question no 1 in final exam (15%), question no 2 in final exam (15%)</p> |
| Reading List | <ol style="list-style-type: none"> 1. Mike O'Docherty, Object-Oriented Analysis and Design: Understanding System Development with UML 2.0, John Wiley & Sons 2. Roger S. Pressman, Software Engineering: A Practitioner's Approach, 5th ed, McGrawHill |