

UNIVERSITAS MATARAM

(University of Mataram)

FAKULTAS TEKNIK

(Faculty of Engineering)

PROGRAM STUDI TEKNIK INFORMATIKA

(Department of Informatics Engineering)

MODULE HANDBOOK DESCRIPTION

Software Management (P22C06)

| Module designation | Software Management |
|--|--|
| Semester(s) in which the module is taught | 6 / third year |
| Person responsible for the module | Royana Afwani, S.T., M.T. |
| Language | Indonesian |
| Relation to curriculum | Compulsory |
| Teaching methods | Lectures, Lectures, Discussions, Case Studies |
| Workload (incl. contact hours, self- study hours) | Contact Hours every week, each week of the 16 weeks/semester including Evaluation • 2 x 50 minutes lecturer/week • 2 x 60 minutes class exercise/week • Self Study hours = 120 minutes/week Total workload 340 minutes/week |
| Credit points | 2 (~ 3,2 ECTS) |
| Required and recommended prerequisites for joining the module | - |

| Module objectives/intende d learning outcomes | The Software Management course aims to provide students with knowledge and practical skills in planning, managing, and controlling software projects. Upon completing this course, students are expected to: Understand the fundamentals of software management, including project planning, risk management, and cost estimation. Apply agile and traditional project management methodologies, such as Scrum, Kanban, Waterfall, and DevOps. Develop software requirement specifications and conduct stakeholder analysis. Manage software development teams and workflows, ensuring efficiency and effective collaboration. Implement version control systems and continuous integration/continuous deployment (CI/CD) pipelines in software projects. Monitor project performance and quality assurance, using software metrics and evaluation techniques. Handle software maintenance, documentation, and post-deployment processes, including bug tracking and user feedback |
|--|--|
| Content | management. 1. Introduction to Software Management 2. Software Development Methodologies 3. Software Project Planning 4. Character Control and Animation 5. Risk Management in Software Development 6. Cost Estimation and Budgeting 7. Software Team and Workflow Management 8. Version Control and CI/CD 9. Software Quality Assurance and Testing 10. Software Metrics and Performance Evaluation |
| Examination forms | 11. Final Project Assignments, Quizzes, Case Studies, Final Project |
| Study and examination requirements Reading list | Assignments: 15% Quizzes: 20% Case Studies: 30% Final Project: 35% 1. Sommerville, I. (2020). Software Engineering (10th Edition). Pearson. 2. Pressman, R. S., & Maxim, B. R. (2020). Software Engineering: A Practitioner's Approach (9th Edition). McGraw-Hill. 3. Martin, R. C. (2019). Clean Architecture: A Craftsman's Guide to Software Structure and Design. Pearson. 4. Schwaber, K., & Sutherland, J. (2020). The Scrum Guide. Scrum.org. 5. Bass, L., Weber, I., & Zhu, L. (2015). DevOps: A Software Architect's Perspective. Addison-Wesley. |