MODULE HANDBOOK DESCRIPTION

Module designation	Software Engineering (FBD3103)
Semester(s) in which the module is taught	*5 / third year*
Person responsible for the module	*Giri Wahyu Wiriasto, S.T., M.T*
Language	*Indonesian*
Relation to curriculum	*Compulsory*
Teaching methods	*Small Group Discussion, Case Base Method*
Workload (incl. contact hours, self-study hours)	Contact Hours every week, each week of the 16 weeks/semester : (per week includes) • 2 x 50 minutes : Lecture • 2 x 60 minutes : Exercise and Assignment • 2 x 60 minutes : Self-learning total Study hours = 340 minutes/week
Credit points	*2 (~ 3,2 ECTS)*
Required and recommended prerequisites for joining the module	-Basic Information Technology (FBS1109) -Basic Programming (FBS1215)
Module objectives/Program Learning Outcomes (PLO)	PLO 3 (H) – **Engineering Analysis** :Able to choose methode, make literature reviews, design experiments with simulations, and analyze result to reach the right conclutions, as well as develop guidelines for using tools PLO 4 (M) – **Engineering Design** : Able to design and develop components, system and/or processes to support engineering activities and create technologicsl innovations by optimally utilizing potential resources PLO 5 (L) – **Experiment** : Able to design and carry out experiments using basic and modern technical tools and analyze and interpret data based on the correct methodology to strengthen engineering assessments

	1. Student are able to explain method , analysis and design of Software Engineering 2. Student are able to explain Software Requirement Process 3. Student are able to explain Software Development Model 4. Student are able design with Context Diagrams and Data Flow Diagrams from several case study	PLO-3
	5. Student are able design with Unified Modeling Language: Use case diagrams and Sequential Diagrams from several case study using UML tools 6. Student are able design with Unified Modeling Language: Collaborative diagrams and Class Diagrams from several case study using UML tools	PLO-3, PLO-4
	7. Student are able to application Software development case studies design and developing Software Requirement Spesification	PLO-5
Content	Introduction Software Engineering , Software Requirement Process, Software Development Model, Software development case studies, Context Diagrams and Data Flow Diagrams from several case study, Unified Modeling Language: Use case diagrams and Sequential Diagrams from several case study, Unified Modeling Language: Collaborative diagrams and Class Diagrams from several case study	
Examination forms	*Multiple choice examination and Essay, Presentation case study, Document Software Requirement Spesification*	
Study and examination requirements	*Per-meeting score = 5 % x 16 meeting = 80%* *Exercise Report/ Homework/Portofolio = 20%*	
Reading list	1. Ian Sommerville.,Software Engineering 9ed , 2009 2. Douglas Bell , Sofware Engineering for Student A programming Approach 4ed 3. Software development from paper journal ;	