MODULE HANDBOOK DESCRIPTION

Module designation	Database (FBD3102)
Semester(s) in which the module is taught	*5 / third year*
Person responsible for the module	*L. Ahmad Syamsul Irfan Akbar, S.T., M.Eng*
Language	*Indonesian*
Relation to curriculum	*Compulsory For Computer System*
Teaching methods	*Project based learning*
Workload (incl. contact hours, self-study hours)	Contact Hours every week, each week of the 16 weeks/semester : (per week includes) • 3 x 50 minutes : Lecture • 3 x 60 minutes : Exercise and Assignment • 3 x 60 minutes : Self-learning total Study hours = 510 minutes/week
Credit points	*3 (~ 4.8 ECTS)*
Required and recommended prerequisites for joining the module	-Basic Information Technology (FBS1109) -Basic Programming (FBS1215)
Module objectives/Program Learning Outcomes (PLO)	PLO 3 – **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 – **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 – **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. Students have the ability to explain the differences between the file system and the DBMS 2. Students have the ability to explain the components of the DBMS	PLO-3 and PLO-4
	3. Students have the ability to form a database through normalization process. 4. Students have the ability to form a database from E-R diagrams	PLO-4
	5. Students have the ability to use SQL commands for defining and processing data	PLO-5
Content	In this course, students will learn about the concept of a database management system (DBMS) and its components. Learn database design such as ER and EER diagrams. Students will implement the design and SQL commands in a case study project that will be completed by the end of the semester	
Examination forms	*Multiple choice examination, Presentation project case study*	
Study and examination requirements	*Project Case Study = 60%* *Exercise Report/ Homework/Portofolio = 40%*	
Reading list	Hoffer,jeff.,Venkantaraman,Ramesh.,Topi,Heikki.,Modern Database management 12thEd. Pearson.2016	