Description of Course Unit

Course unit title	Experimental Design
Course unit code	VS191301
Type of course unit (compulsory, optional)	Compulsory
Level of course unit (according to EQF: first cycle Bachelor, second cycle Master)	first cycle Bachelor
Year of study when the course unit is delivered (if applicable)	
Semester/trimester when the course unit is delivered	3
Number of ECTS credits allocated	4,8
Name of lecturer(s)	Lucia Ari Dinanti, Sri Pingit Wulandari, Mukti RD and Zakiatul Wildani
Learning outcomes of the course unit	1.Able to explain the understanding, usefulness and basic concepts of Experimental Design 2. Able to analyze Complete Random Design, and Able to analyze multiple comparisons with 4 methods (LSD, HSD, Duncan and Dunnett both manually and with software 3. Able to analyze Complete Random Block Design both manually and with the help of software and read the results (confounding) and Able to analyze Balance incomplete block designs both manually and with the help of software and read the results and 4. Able to analyze Latin Square Design and Graeco LS both manually and with the help of software and read the results 5. Able to analyze 2 and 3 factor designs both manually and with the help of software and read the results 6. Able to analyze 2k factorial design 7. Able to analyze 2k-p Factorial Fractional Design
Mode of delivery (face-to-face, distance learning)	Face to face
Prerequisites and co-requisites (if applicable)	-
Course content	
Recommended or required reading and other learning resources/tools	1. Box, Hunter,Hunter, "Statistics for Experimenters, An Introduction to Desain, Data Analysis, and Model Building", Wiley Interscience, 1978 2. Ronald E. Walpole, Raymond H. Myers, Sharon L. Myers, Keying Y,"Probability and Statistics for Engineers and Scientists" (ninth edition), Pearson Education, Inc, .2012 3. Montgomery, D.C, 2005, *Design and Analysis of Experiments*, 6th ed. John Wiley & Sons Inc., New York.
Planned learning activities and teaching methods	Problem Based Learning, Blended Learning
Language of instruction	Indonesian Language
Assessment methods and criteria	Assignment, Quiz, Midterm Exam and Final Exam.