Description of Course Unit

Course unit title	Data Analysis I
Course unit code	VS191707
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	7
Number of ECTS credits allocated	3,2
Name of lecturer(s)	Brodjol Sutijo Suprih Ulama, Mukti Ratna Dewi
Learning outcomes of the course unit	Students are able to : - perform data management and exploration; - perform hypothesis testing and distribution testing; - perform analysis of experimental design; - apply simple and multiple linear regression methods to real problems; - apply the dummy variable regression method to real problems; - apply poisson regression method to real problems.
Mode of delivery (face-to-face, distance learning)	Face to face
Prerequisites and co-requisites (if applicable)	Computational Statistics, Regression Methods
Course content	1. Descriptive statistics for structured data for various types of data scales. 2. Data examination which includes symmetry, skewness, kurtosis, homogeneity of variance, normality, and data transformation. 3. Hypothesis testing for one, two and k normally distributed populations. 4. Parameter estimation and hypothesis testing on CRD, CRBD, LSD and Factorial Design 5. The measure of the closeness of the relationship between variables 6. Modeling the relationship between variables with one or more than one predictor 7. Testing the residual assumptions of regression analysis 8. Dummy regression 9. Poisson regression
Recommended or required reading and other learning resources/tools	1. Diktat Pengajaran AD 1 (Departemen Statistika Bisnis ITS) 2. Walpole, R.E. and R.H.Myers (Terjemahan oleh RK Sembiring), "Ilmu Probabilitas dan Statistika untuk Insinyur dan Ilmuwan", Penerbit ITB, Bandung. 2010 3. Draper, N.R and Smith, H, "Applied Regression Analysis", John Wiley & Sons.Inc, New York. 1998 4. Wulandari, S.P dan Ratih, I.D, Metode Regresi (Teori dan Aplikasi)

	5. Mattjik A.A, Sumerta Jaya I M, "Perancangan Percobaan dengan Aplikasi SAS dan Minitab", IPB Press. 2006
	6. Mutiah S, Wulandari, S.P, "Modul Praktikum Disain Eksperimen". 2011
Planned learning activities and teaching methods	Project Based learning, Problem Based Learning, Blended Learning
Language of instruction	Indonesian Language
Assessment methods and criteria	Assignment, final project