INSTITUT TEKNOLOGI SEPULUH NOPEMBER
FACULTY OF SCIENCE AND DATA ANALYTICS
DEPARTMENT OF STATISTICS
STATISTICS UNDERGRADUATE PROGRAM

Course	Course Name	:	**Categorical Data Analysis**
	Course Code	:	SS234420
	Credit	:	3 SKS
	Semester	:	IV

COURSE DESCRIPTION

Category data analysis is a statistical modeling course. There are five topics that will be studied in this course, starting from a). Two, three and k dimensional contingency tables. b). Calculates multiple association measures. d). Create two, three and k dimensional linear log models. e). Creating binary, multinomial and ordinal logistic regression models. f). Create a probit regression model. g). Poisson regression model. Through this course, it is hoped that students will have the ability to think critically and be able to make the right decisions to solve problems using Category Data. The learning strategies used are lectures, discussions, exercises, and assignments.

PROGRAM LEARNING OUTCOME

PLO-2	Able to study and utilize science and technology in order to apply it to certain areas of expertise, and be able to make appropriate decisions from the results of their own work or group work in the form of final project reports or other forms of learning activities whose output is equivalent to the Final Project through logical, critical thinking , systematic and innovative
PLO-4	Able to apply science and mathematics to support the understanding of statistical methods.
PLO-5	Able to apply statistical theory to statistical methods.
PLO-9	Able to apply statistical methods to analyze theoretical and real problems

COURSE LEARNING OUTCOME

CLO.1	Mastering the theoretical concepts of methods for categorical data
CLO.2	Able to formulate solutions and analyze procedural problems for categorical data using appropriate statistical methods and interpret them
CLO.3	Able to apply methods for categorical data
CLO.4	Able to identify, formulate, and solve statistical problems in various applied fields using statistical software
CLO.5	Able to adapt to the situation at hand
CLO.6	Able to make the right decisions based on categorical data analysis and able to communicate the results of the analysis both orally and in writing
CLO.7	Able to communicate effectively and work together in interdisciplinary and multidisciplinary teams
CLO.8	Have professional responsibilities and ethics

CLO.9 Able to motivate yourself to think creatively and learn throughout life
MAIN SUBJECT
1. Introduction to Categorical Data Analysis 2. Contingency Table 3. Log Linear Model 4. Logistic Regression Models 5. Probit Regression Models 6. Poisson Regression Models
PREREQUISITE
Introduction to Probability Theory
REFERENCES
1. Agresti, Alan. An Introduction to Categorical Data Analysis. Hoboken, New Jersey: John Wiley & Sons, Inc, 2007. 2. Agresti Alan. Categorical Data Analysis. Hoboken, New Jersey: A John Wiley & Sons, Inc, 2002. 3. David W. Hosmer, Stanley Lemeshow. Applied Logistic Regression. New York: John Wiley & Sons, Inc, 2000