

## MODULE HANDBOOK

Module name		Categorical Data Analysis																							
Module-level, if applicable		3 <sup>rd</sup> year																							
Code, if applicable		SST-504																							
Semester(s) in which the module is taught		5 <sup>th</sup> (fifth)																							
Person responsible for the module		Dina Tri Utari, S.Si., M.Sc.																							
Lecturer		Dr. Jaka Nugraha, M.Si																							
Language		Bahasa Indonesia																							
Relation to curriculum		Compulsory course in the third year (5nd semester) Bachelor Degree																							
Types of teaching and learning	Class size	Attendance time (hours per week per semester)	Form of active participation	Workload (hours per semester)																					
Lecture	50-60	1.67	Problem solving	Face to face teaching	23.33																				
				Structured activities	32																				
				Independent study	32																				
				Exam	3.33																				
Total Workload		90.67 hours																							
Credit points		2 CUs / 3.4 ECTS																							
Requirements according to the examination regulations		Minimum attendance at lectures is 75%. Final score is evaluated based on assignment, mid-term exam, and final exam.																							
Recommended prerequisites		Statistical Methods II (SST-204)																							
Related Course		Applied Multivariate Statistics (SST-602)																							
Module objectives/intended learning outcomes		<p>After completing this course, the students have ability to:</p> <p>CO1. do statistical inference for a proportion in Binomial Distribution and Multinomial Distribution.</p> <p>CO2. do tests of independence for contingency tables using Fisher's Exact Test and Chi-squared tests</p> <p>CO3. do statistical inference in Loglinear model.</p> <p>CO4. perform logistic regression model in binary, nominal and ordinal data.</p>																							
Content		<ol style="list-style-type: none"> <li>1. <b>Probability Distributions for Categorical Data</b> (Binomial, Multinomial and Poisson)</li> <li>2. <b>Statistical Inference for a Proportion</b> (Likelihood Ratio, Wald Test, Score Test. Goodness of Fit Test. Exact Inference for Small Samples.</li> <li>3. <b>Contingency Tables</b>: Comparing Proportions, Odds Ratio, Chi-Squared Tests of Independence.</li> <li>4. <b>Loglinear models</b>: Multinomial and Poisson Sampling, Notations, saturated model and independence model, inference for models parameter, fitting model.</li> <li>5. <b>Logistic Regression</b> : Interpreting, inference and model building Logistic Regression Model for binary, Nominal and Ordinal response</li> </ol>																							
Study and examination requirements and forms of examination		<p>The final mark will be weighted as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">No</th> <th style="width: 20%;">Assessment components</th> <th style="width: 55%;">Assessment types</th> <th style="width: 20%;">Weight (percentage)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CO1</td> <td>Assignment, Midterm Exam</td> <td>25%</td> </tr> <tr> <td>2</td> <td>CO2</td> <td>Assignment, Midterm Exam</td> <td>25%</td> </tr> <tr> <td>3</td> <td>CO3</td> <td>Assignment, Final Exam</td> <td>25%</td> </tr> <tr> <td>4</td> <td>CO4</td> <td>Assignment, Final Exam</td> <td>25%</td> </tr> </tbody> </table>				No	Assessment components	Assessment types	Weight (percentage)	1	CO1	Assignment, Midterm Exam	25%	2	CO2	Assignment, Midterm Exam	25%	3	CO3	Assignment, Final Exam	25%	4	CO4	Assignment, Final Exam	25%
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