Syllabus for the first semester of 2022

General Information

Subject number	4201
Subject name	Categorical data analysis
Consultation time	
Core Competency Lecture Goals	You can set up principles and plans for your own learning activities and systematically practice them. Can draw and utilize new ideas and methods by looking at things and events from various angles Understand various information and knowledge, identify problems, analyze and reason, and apply them to problem solving
Notes on course application	Senior of Applied Statistics Department are preferred

evaluation rate

Item	importance(%)	perfect score	Disclosure
attendance rate	0	10	open
midterm exam rate	0	100	open
Final exam rate	100	100	open
Assignment rate	0	20	open
Quiz	0	0	open
Announcement	0	0	open
project	0	0	open
debate	0	0	open
Other 5	0	0	open

lecture material

number	Classification of textbooks	Textbook name	author	publisher	Year of publication
One	episcopal material	An Introduction to categorical data analysis, 3rd	Alan Agresti	Wiley	
2	supplementary material	Introduction to Categorical Data Analysis (3rd Edition)	By ALAN AGRESTI | Tae-Sung Park, Seung-Yeon Lee	free academy	

Lecture assignments

number	Project Title	When to submit	How to submit
One	TBA		

Weekly syllabus

parking	period	topic	lecture content	Class type	lecture activities	Instructor in charge
One	03/02 ~ 03/08	Introduction	1.1 Categorical Response data 1.2 Probability distributions for categorical data			
2	03/09 ~ 03/15	Introduction-Continued	1.3 Statistical Inference for a proportion 1.4 More on statistical inference for discrete data			
3	03/16 ~ 03/22	Contingency tables	2.1 Probability structure for contingency tables 2.2 Comparing proportions in two-by-two tables			
4	03/23 ~ 03/29	Continued	2.3 The odds ratio 2.4 Chi-squared tests			
5	03/30 ~ 04/05	Continued	2.5 Testing independence 2.6 Exact inference for small samples			
6	04/06 ~ 04/12	Generalized Lienar Models	3.1 Components of a GLM 3.2 GLM for binary data			
7	04/13 ~ 04/19	Continued	3.3 GLM for count data 3.4 Statistical inference			
8	04/20 ~ 04/26	Midterm	Midterm			
9	04/27 ~ 05/03	Logistic Regression	4.1 Interpretation 4.2 Inference for logistic regression			
10	05/04 ~ 05/10	Continued	4.3 Logistic regression with categorical predictors 4.4 Multiple logistic regression			
11	05/11 ~ 05/17	Building and Applying Logistic Regression Models	5.1 Strategies in model selection 5.2 Model Checking			
12	05/18 ~ 05/24	Continued	5.3 Effects of sparse data 5.4 Conditional Logistic regression			
13	05/25 ~ 05/31	Multicagegory Logit Models	6.1 Logit models for nominal responses 6.2 Cumulative Logit Models for ordinal responses			
14	06/01 ~ 06/07	Models for Matched Pairs	8.1 McNemar's test 8.5 Measuring agreement			
15	06/08 ~ 06/14	Loglinear models for contingency tables	7.1 Loglinear models for two-way and three-way tables 7.2 Inference for loglinear models			
16	06/15 ~ 06/21	Final Exam	Final Exam			