Course Title	CATEGORICAL DATA ANALYSIS	Instructor	TSENG, YAO-TING
Course Class	TLSXB3B DEPARTMENT OF STATISTICS, 3B	Details	◆ General Course ◆ Required ◆ One Semester ◆ 3 Credits
Relevance to SDGs	SDG4 Quality education SDG8 Decent work and economic growth SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Cultivate students with knowledge of basic statistical theory.

Ⅱ. Cultivate students with data analysis skills.

Ⅲ. Cultivate students to become statistical professionals with management capabilities.

Subject Departmental core competences

A. Knowledge of basic statistical theory.(ratio:40.00)

B. Logical reasoning in mathematics.(ratio:5.00)

C. Data analysis skills.(ratio:50.00)

D. Application of profession knowledge.(ratio:5.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:5.00)

2. Information literacy. (ratio:20.00)

3. A vision for the future. (ratio:5.00)

4. Moral integrity. (ratio:10.00)

5. Independent thinking. (ratio:30.00)

6. A cheerful attitude and healthy lifestyle. (ratio:5.00)

7. A spirit of teamwork and dedication. (ratio:20.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

1 Course Introduction	This semester we will introduce contingency tables, generalized linear model, logistic regression, multicategory logit models, and loglinear models.

The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

 I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of
           the course's veracity, conception, procedures, outcomes, etc.
II.Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal,
           morals, attitude, conviction, values, etc.
III.Psychomotor: Emphasis upon the study of the course's physical activity and technical
           manipulation.

No.	Teaching Objectives	objective methods
1	Understand how to analysis contingency tables.	Cognitive
2	Understand logistic regression model concept and application.	Cognitive
3	Understand loglinear model concept and application.	Cognitive

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCD	12345678	Lecture, Publication	Testing, Study Assignments
2	ABCD	12345678	Lecture, Publication	Testing, Study Assignments
3	ABCD	12345678	Lecture, Publication	Testing, Study Assignments

Course Schedule

Week	Date	Course Contents	Note
1	114/02/17 ~ 114/02/23	chapter 1: Introduction	
2	114/02/24 ~ 114/03/02	chapter 1: Introduction	

3	114/03/03 ~ 114/03/09	chapter 2: Analyzing Contingency Tables	
4	114/03/10 ~ 114/03/16	chapter 2: Analyzing Contingency Tables	
5	114/03/17 ~ 114/03/23	chapter 3: Generalized Linear Models	
6	114/03/24 ~ 114/03/30	chapter 3: Generalized Linear Models	
7	114/03/31 ~ 114/04/06	chapter 4: Logistic Regression	
8	114/04/07 ~ 114/04/13	chapter 4: Logistic Regression	
9	114/04/14 ~ 114/04/20	Midterm Exam/Midterm Assessment Week (teachers can adjust the week as needed)	
10	114/04/21 ~ 114/04/27	chpater 5: Building and Applying Logistic Regression Models	
11	114/04/28 ~ 114/05/04	chapter 5: Building and Applying Logistic Regression Models	
12	114/05/05 ~ 114/05/11	chapter 6: Multicategory Logit Models	
13	114/05/12 ~ 114/05/18	chapter 6: Multicategory Logit Models	
14	114/05/19 ~ 114/05/25	chapter 6: Multicategory Logit Models	
15	114/05/26 ~ 114/06/01	chapter 7: Loglinear Models for Contingency Tables and Counts	
16	114/06/02 ~ 114/06/08	chapter 7: Loglinear Models for Contingency Tables and Counts	
17	114/06/09 ~ 114/06/15	Final Exam/Final Assessment Week (teachers can adjust the week as needed)	
18	114/06/16 ~ 114/06/22	Flexible Teaching Week: Generally, no in-person classes; teachers may arrange teaching activities or final assessments, among other options.	
Key capabilities			
Interdisciplinary			

Distinctive teaching	
Course Content	Logical Thinking AI application
Requirement	
Textbooks and Teaching Materials	Using teaching materials from other writers:Textbooks Name of teaching materials: Alan Agresti: An Introduction to Categorical Data Analysis (3rd Edition)
References	
Grading Policy	◆ Attendance： ﹪ ◆ Mark of Usual：15.0 ﹪ ◆ Midterm Exam： 35.0 ﹪ ◆ Final Exam： 35.0 ﹪ ◆ Other〈report〉：15.0 ﹪
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php . ※ **Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**