Tamkang University Academic Year 112, 2nd Semester Course Syllabus

Course Title	CATEGORICAL DATA ANALYSIS	Instructor	TSENG, YAO-TING
Course Class	TLSXB3C DEPARTMENT OF STATISTICS, 3C	Details	◆ Blended 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)

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

Note for Blended Course : When utilizing weekly digital instruction, please fill in "Online Asynchronous Instruction".

Week	Date	Course Contents	Note
1	113/02/19 ~ 113/02/25	chapter 1: Introduction	
2	113/02/26 ~ 113/03/03	chapter 1: Introduction / 228 holiday	

3	113/03/04 ~ 113/03/10	chapter 2: Analyzing Contingency Tables	
4	113/03/11 ~ 113/03/17	chapter 2: Analyzing Contingency Tables	
5	113/03/18 ~ 113/03/24	chapter 3: Generalized Linear Models	Online Asynchronous Instruction
6	113/03/25 ~ 113/03/31	chapter 3: Generalized Linear Models	Online Asynchronous Instruction
7	113/04/01 ~ 113/04/07	chapter 4: Logistic Regression	
8	113/04/08 ~ 113/04/14	chapter 4: Logistic Regression	
9	113/04/15 ~ 113/04/21	Midterm Exam Week	
10	113/04/22 ~ 113/04/28	chpater 5: Building and Applying Logistic Regression Models	
11	113/04/29 ~ 113/05/05	chapter 5: Building and Applying Logistic Regression Models	
12	113/05/06 ~ 113/05/12	chapter 6: Multicategory Logit Models	
13	113/05/13 ~ 113/05/19	chapter 6: Multicategory Logit Models	Online Asynchronous Instruction
14	113/05/20 ~ 113/05/26	chapter 6: Multicategory Logit Models	Online Asynchronous Instruction
15	113/05/27 ~ 113/06/02	chapter 7: Loglinear Models for Contingency Tables and Counts	
16	113/06/03 ~ 113/06/09	chapter 7: Loglinear Models for Contingency Tables and Counts	
17	113/06/10 ~ 113/06/16	610 Dragon Boat Festival / Final Exam Week (Date:113/6/11-113/6/17)	
18	113/06/17 ~ 113/06/23	Flex week, learning activities should be arranged.	

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	1. This syllabus may be uploaded at the website of the Course Syllabus Management System at https://info.ais.tku.edu.tw/csp or through the link of the Course Syllabus Upload posted on the home page of the TKU Office of Academic Affairs http://www.acad.tku.edu.tw/CS/main.php 2. According to the Implementation regulations of distance education for junior college and above are prescribed pursuant to Article 2, "The distance learning course referred to in these Measures refers to more than one-half of the teaching hours in each subject." 3. According to the regulations of Tamkang University Enforcement Rules for digital teaching, Paragraph 2 and Article 3, the distance learning course of our school must be "The course of digital teaching with distance learning platform or synchronous video system in our school. Teaching Hours include course lectures, teacher-student interaction discussions, quizzes and other learning activities." 4. If there are any temporary course changes (including time changes and classroom changes of distance learning courses, blended courses), please make out an application according to regulations to the Office of Academic Affairs. **※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**