Tamkang University Academic Year 113, 2nd Semester Course Syllabus

Course Title	APPLIED STATISTICAL ANALYSIS	Instructor	MENG-IA CHUNG
Course Class	TLGBM1A MASTER'S PROGRAM IN BUSINESS AND MANAGEMENT, DEPARTMENT OF MANAGEMENT SCIENCES (ENGLISH-TAUGHT PROGRAM), 1A	Details	◆ General Course ◆ Selective ◆ One Semester ◆ 3 Credits
Relevance to SDGs	SDG4 Quality education		

Departmental Aim of Education

Ⅰ. Develop a business and management perspective for students.

Ⅱ. Train the professionals in the integrated fields of business and management.

Ⅲ. Cultivate the talents with both theory and practices in business and management.

Subject Departmental core competences

A. Provide the basic knowledge of both theory and practices.(ratio:20.00)

B. Enhance the practical training for the current trends.(ratio:30.00)

C. Cultivate the ethics in business and management.(ratio:20.00)

D. Obtain the ability of analyzing industrial and business problems.(ratio:30.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:30.00)

3. A vision for the future. (ratio:10.00)

4. Moral integrity. (ratio:5.00)

5. Independent thinking. (ratio:30.00)

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

7. A spirit of teamwork and dedication. (ratio:5.00)

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

Course Introduction	The aim of this course is to equip students with practical knowledge of common quantitative methods. Topics of the course include linear models, logistic regression, design of experiments, scale development, factor analysis and structural equation modeling. This course will mainly use SPSS and AMOS software. R software will also be used when necessary.

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	The aim of this course is to equip students with practical knowledge of common quantitative methods.	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	Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	114/02/17 ~ 114/02/23	Introduction	
2	114/02/24 ~ 114/03/02	Review of Probability and Statistical Inferences I	
3	114/03/03 ~ 114/03/09	Review of Probability and Statistical Inferences II	
4	114/03/10 ~ 114/03/16	General Linear Models I	
5	114/03/17 ~ 114/03/23	General Linear Models II	
6	114/03/24 ~ 114/03/30	General Linear Models III	

7	114/03/31 ~ 114/04/06	General Linear Models IV	
8	114/04/07 ~ 114/04/13	Review I	
9	114/04/14 ~ 114/04/20	Midterm	
10	114/04/21 ~ 114/04/27	Measurement Models I	
11	114/04/28 ~ 114/05/04	Measurement Models II	
12	114/05/05 ~ 114/05/11	Structural Models I	
13	114/05/12 ~ 114/05/18	Structural Models II	
14	114/05/19 ~ 114/05/25	Generalized Linear Models I	
15	114/05/26 ~ 114/06/01	Generalized Linear Models II	
16	114/06/02 ~ 114/06/08	Review II	
17	114/06/09 ~ 114/06/15	Final exam	
18	114/06/16 ~ 114/06/22	tbd	

Key capabilities	self-directed learning Information Technology
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)
Distinctive teaching	Project implementation course
Course Content	Computer programming or Computer language (students have hands-on experience in related projects) Logical Thinking
Requirement	
Textbooks and Teaching Materials	Self-made teaching materials:Presentations Name of teaching materials: slides

References	Principles and Practice of Structural Equation Modeling 4th edition by Rex Kline
Grading Policy	◆ Attendance： % ◆ Mark of Usual： % ◆ Midterm Exam： % ◆ Final Exam： % ◆ Other〈2 assignments〉：100.0 %
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.**