Tamkang University Academic Year 111, 1st Semester Course Syllabus

Course Title	STATISTICS		Instructor	JEN-HO YANG
Course Class	TKFXB2A DEPARTMENT OF ARTIFICIAL INTELLIGENCE, 2A		Details	◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG9 Industry, Innovation, and Infrastructure			

Departmental Aim of Education

Ⅰ. Students may analyze problems in applied science based on the fundamental knowledge of programming, mathematics, and artificial intelligence.

Ⅱ. Students may plan and implement an AI system following the procedures of problem analysis, experiment testing, data visualizing, derivation and deduction.

Ⅲ. Educate the students to be AI engineers who may accomplish their missions indepedently and may collaborate with their colleagues in the workplace.

Ⅳ. Students may have basic skills and global competence for career diversification, and may keep lifelong learning.

Subject Departmental core competences

A. Professional analysis.(ratio:40.00)

B. Practical application.(ratio:30.00)

C. Professional attitude.(ratio:25.00)

D. Global Mobility.(ratio:5.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:20.00)

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:10.00)

7. A spirit of teamwork and dedication. (ratio:10.00)

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

Course Introduction	Statistics simply means numerical data, and is field of math that generally deals with collection of data, tabulation, and interpretation of numerical data. It is actually a form of mathematical analysis that uses different quantitative models to produce a set of experimental data or studies of real life.	

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 objective of this course is to provide the students with the essential and fundamental concepts of elementary statistics. At the end of this course, the students should be able to define the real problem, to use graphical and numerical summaries, to apply standard statistical inference procedures, and to draw conclusions from statistical analyses.	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, Discussion	Testing, Study Assignments

Course Schedule

Week	Date	Course Contents	Note
1	111/09/05 ~ 111/09/11	Course Introduction	
2	111/09/12 ~ 111/09/18	Data and Statistics	

3	111/09/19～111/09/25	Tabular and Graphical Presentation	
4	111/09/26～111/10/02	Tabular and Graphical Presentation	
5	111/10/03～111/10/09	Numerical Measures	
6	111/10/10～111/10/16	Discrete Probability Distributions	
7	111/10/17～111/10/23	Continuous Probability Distributions	
8	111/10/24～111/10/30	Sampling and Sampling Distributions	
9	111/10/31～111/11/06	Sampling and Sampling Distributions	
10	111/11/07～111/11/13	Midterm Exam Week	
11	111/11/14～111/11/20	Sampling and Sampling Distributions	
12	111/11/21～111/11/27	Sampling and Sampling Distributions	
13	111/11/28～111/12/04	Interval Estimation	
14	111/12/05～111/12/11	Interval Estimation	
15	111/12/12～111/12/18	Interval Estimation	
16	111/12/19～111/12/25	Hypothesis Tests	
17	111/12/26～112/01/01	Hypothesis Tests	
18	112/01/02～112/01/08	Final Exam Week	

Requirement	
Teaching Facility	Computer
Textbooks and Teaching Materials	Statistics for management and economics, 11e, Gerald Keller
References	
Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 30.0 ％ ◆ Mark of Usual： ％ ◆ Midterm Exam： 30.0 ％ ◆ Final Exam： 40.0 ％ ◆ Other〈 〉： ％

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 .
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