Tamkang University Academic Year 113, 2nd Semester Course Syllabus

Course Title	DATA PROCESSING AND VISUALIZATION	Instructor	WEI-HSIU LIN
Course Class	TRJXB1A DEPARTMENT OF GLOBAL POLITICS AND ECONOMICS (ENGLISH-TAUGHT PROGRAM), 1A	Details	◆ General Course ◆ Selective ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG11 Sustainable cities and communities SDG17 Partnerships for the goals		

Departmental Aim of Education

To be equipped with a basic knowledge of economics and political science, to develop confidence in communicating professionally and academically in English in matters related to the global political economy; to acquire the capability to conduct further research individually and collectively with others; and ultimately to prepare oneself to become professionals and leaders with a global perspective for the international arena.

Subject Departmental core competences

A. Provide essential analytical abilities in the area of politics and economics(ratio:35.00)

B. Provide knowledge and skills to understand the current global issues(ratio:5.00)

C. Develop a high level of proficiency in verbal and written English required in the course of study and for communication purposes(ratio:20.00)

D. Develop ability to pursue research independently as well as in teams(ratio:30.00)

E. Provide basic knowledge on Taiwan's political and economic development(ratio:10.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:5.00)

2. Information literacy. (ratio:10.00)

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

4. Moral integrity. (ratio:5.00)

5. Independent thinking. (ratio:20.00)

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

7. A spirit of teamwork and dedication. (ratio:30.00)

8. A sense of aesthetic appreciation. (ratio:20.00)

	Course Introduction	An efficient way to express your data is essential when you receive data. Data visualization precisely communicates your data with software through graphs, images, or dashboards. This course will conduct data visualization with Power Bi. Compared to traditional data expression, Power Bi can instantly connect with cloud data, upgrading graphs, images, or dashboards. Users, therefore, always master up-to-date information.

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	1.to understand the importance of big data and data visualization. 2.to learn the way to process data with Power Bi 3.organizing official data	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDE	12345678	Lecture, Discussion, Practicum, Experience	Study Assignments, Report(including oral and written), Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	114/02/17 ~ 114/02/23	Introduction	
2	114/02/24 ~ 114/03/02	Principles of data visualization	
3	114/03/03 ~ 114/03/09	Introducing Power Bi Desktop	
4	114/03/10 ~ 114/03/16	Power BI database	

5	114/03/17~ 114/03/23	Visualization in Power Bi (I)	
6	114/03/24~ 114/03/30	Visualization in Power Bi (II)	
7	114/03/31~ 114/04/06	Visualization in Power Bi (III)	
8	114/04/07~ 114/04/13	Visualization in Power Bi (VI)	
9	114/04/14~ 114/04/20	Midterm Assessment Week	
10	114/04/21~ 114/04/27	Map in Power Bi	
11	114/04/28~ 114/05/04	Visual Effects in Power BI	
12	114/05/05~ 114/05/11	External visual effects in Power Bi	
13	114/05/12~ 114/05/18	DAX in Power B (I)	
14	114/05/19~ 114/05/25	DAX in Power B (II)	
15	114/05/26~ 114/06/01	Dashboards in Power Bi	
16	114/06/02~ 114/06/08	final presentation	
17	114/06/09~ 114/06/15	final presentation	
18	114/06/16~ 114/06/22	make-up	

Key capabilities	self-directed learning Information Technology
Interdisciplinary	Competency-based education 'competency exploration' sustained competency or global issues STEEP (Society, Technology, Economy, Environment, and Politics)
Distinctive teaching	Project implementation course
Course Content	Computer programming or Computer language (students have hands-on experience in related projects) AI application
Requirement	No

Textbooks and Teaching Materials	Self-made teaching materials:Handouts Using teaching materials from other writers:Presentations
References	
Grading Policy	◆ Attendance： 　 %　 ◆ Mark of Usual：40.0 %　 ◆ Midterm Exam： 30.0 % ◆ Final Exam： 30.0 % ◆ 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 . ※ **Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**