Tamkang University Academic Year 113, 1st Semester Course Syllabus

Course Title	BIG DATA MINING	Instructor	NAIDA PARSAZADEH
Course Class	TLMXB4P DEPARTMENT OF INFORMATION MANAGEMENT, 4P	Details	◆ General Course ◆ Selective ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG8 Decent work and economic growth SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Refining information management skills.

Ⅱ. Enhancing information technology capabilities.

Ⅲ. Thinking independently with logic analysis.

Ⅳ. Reinforcing team-working spirit.

Ⅴ. Valuing business and information ethics.

Ⅵ. Cultivating global view.

Subject Departmental core competences

A. Problem analysis and critical thinking.(ratio:35.00)

B. Functional business Areas and business practices.(ratio:5.00)

C. Applications of information systems.(ratio:5.00)

D. Computer programming.(ratio:20.00)

E. Network system planning.(ratio:5.00)

F. Database design and management.(ratio:20.00)

G. Analysis, design and integration of information system.(ratio:5.00)

H. Project management.(ratio:5.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:15.00)

2. Information literacy. (ratio:30.00)

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

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	This course mainly teaches students data visualization skills in Big Data Analysis; through a series of practical hands-on exercises, real-world case studies, and interactive data storytelling, it cultivates students' ability to solve real problems through big data analysis and data mining.

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	Learn big data analysis and tools and how to visualize data to derive meaningful insights and communicate data-driven recommendations effectively.	Cognitive

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

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

Course Schedule

Week	Date	Course Contents	Note

1	113/09/09 ~ 113/09/15	Course Introduction	
2	113/09/16 ~ 113/09/22	Introduction to Data Visualization & Setup the Development Environment	
3	113/09/23 ~ 113/09/29	Data Sources and Data Transformation	
4	113/09/30 ~ 113/10/06	Data Modeling (1)	
5	113/10/07 ~ 113/10/13	Data Modeling (2)	
6	113/10/14 ~ 113/10/20	Dashboard Design (1)	
7	113/10/21 ~ 113/10/27	Dashboard Design (2)	
8	113/10/28 ~ 113/11/03	Advanced Functions	
9	113/11/04 ~ 113/11/10	Midterm Exam Week	
10	113/11/11 ~ 113/11/17	Interactive Storytelling with Data (1)	
11	113/11/18 ~ 113/11/24	Interactive Storytelling with Data (2)	
12	113/11/25 ~ 113/12/01	Data Blending and Sharing	
13	113/12/02 ~ 113/12/08	Data Publishing and Visualization	
14	113/12/09 ~ 113/12/15	Data streaming with Tableau	
15	113/12/16 ~ 113/12/22	Project presentation	
16	113/12/23 ~ 113/12/29	Project presentation	
17	113/12/30 ~ 114/01/05	Final Exam Week	
18	114/01/06 ~ 114/01/12	Flex week, learning activities should be arranged.	

Key capabilities	
Interdisciplinary	
Distinctive teaching	

Course Content	Logical Thinking
Requirement	
Textbooks and Teaching Materials	Self-made teaching materials:Textbooks, Presentations
References	
Grading Policy	◆ Attendance： 10.0 % ◆ Mark of Usual：10.0 % ◆ Midterm Exam： 20.0 % ◆ Final Exam： 20.0 % ◆ Other〈Presentation〉：40.0 %
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.**