Tamkang University Academic Year 108, 2nd Semester Course Syllabus

Course Title	DATA MINING	Instructor	LIAO SHU-HSIEN
Course Class	TLQXM1A MASTER'S PROGRAM IN BUSINESS AND MANAGEMENT (ENGLISH-TAUGHT PROGRAM), 1A	Details	◆ General Course ◆ Selective ◆ One Semester

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:25.00)

B. Enhance the practical training for the current trends.(ratio:25.00)

C. Cultivate the ethics in business and management.(ratio:25.00)

D. Obtain the ability of analyzing industrial and business problems.(ratio:25.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:20.00)

2. Information literacy. (ratio:50.00)

5. Independent thinking. (ratio:30.00)

Course Introduction	Data mining is not only an approach but also a methodology to investigate database as the problem domain of the big data. Thus, this course aims at several issues, including data and database, database model, big data, data mining functions, data mining approaches and the design of business intelligence architecture. In these regards, this course provides student a horizon to a big data analysis technology.

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	Student learns how to see and Report, organize data and database. Student learns how to implement data mining approaches on the database. Student learns the concept of business intelligence.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCD	125	Lecture, Discussion	Discussion(including classroom and online), Practicum, Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	109/03/02 ~ 109/03/08	3/4 Course introduction and evaluation	
2	109/03/09 ~ 109/03/15	3/11 Basic concept of business intelligence	
3	109/03/16 ~ 109/03/22	3/18 Relational database development – ER model	
4	109/03/23 ~ 109/03/29	3/25 Relational database development – enhanced ER model	
5	109/03/30 ~ 109/04/05	4/1 Relational database development – Logical ER model	
6	109/04/06 ~ 109/04/12	4/8 Data warehousing	
7	109/04/13 ~ 109/04/19	4/15 Introduction on data mining	
8	109/04/20 ~ 109/04/26	4/22 Data mining approaches	
9	109/04/27 ~ 109/05/03	4/29 Midterm Exam Week	Report writing

10	109/05/04 ~ 109/05/10	5/6 SPSS Modeler Introduction	
11	109/05/11 ~ 109/05/17	5/13 SPSS Modeler practice	
12	109/05/18 ~ 109/05/24	5/20 SPSS Modeler practice	
13	109/05/25 ~ 109/05/31	5/27 SPSS Modeler practice	
14	109/06/01 ~ 109/06/07	6/3 Report presentation – session 1	
15	109/06/08 ~ 109/06/14	6/10 Report presentation – session 2	
16	109/06/15 ~ 109/06/21	6/17 Report presentation – session 3	
17	109/06/22 ~ 109/06/28	6/24 Final Exam Week	Submit report
18	109/06/29 ~ 109/07/05	Supplementary teaching:	

Requirement	1. Attendance 2. Presentation skill and content 3. Final report
Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	Mark Hall; Ian Witten; and Eibe Frank; Data Mining: Practical Machine Learning Tools and Textbook(s) Techniques, third edition, (2013). Morgan Kaufmann Publishers (ISBN: 978-0-12-374856-0).
References	I-Class teaching materials
Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 20.0 ％ ◆ Mark of Usual：20.0 ％ ◆ Midterm Exam： 15.0 ％ ◆ Final Exam： 15.0 ％ ◆ Other〈Oral presentation〉：30.0 ％
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.**