

## Tamkang University Academic Year 109, 2nd Semester Course Syllabus

Course Title	DATA MINING	Instructor	CHEN, DUEN-KAI
Course Class	TQICB4A DIVISION OF SOFTWARE ENGINEERING, DEPARTMENT OF INNOVATIVE INFORMATION AND TECHNOLOGY (ENGLISH-TAUGHT PROGRAM), 4A	Details	◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	SDG4 Quality education		
Departmental Aim of Education			
Cultivate professional talents in developing and applying information system in various fields.			
Subject Departmental core competences			
E. Capability of integrating information system(ratio:100.00)			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:10.00) 2. Information literacy. (ratio:70.00) 5. Independent thinking. (ratio:10.00) 7. A spirit of teamwork and dedication. (ratio:10.00)			
Course Introduction	Data mining is the automated extraction of patterns representing knowledge implicitly stored in massive data repositories. This course explores the concepts and techniques of 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	Students will learn the concepts and techniques of data mining, and should be able to perform basic data analysis.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	E	1257	Lecture, Discussion, Practicum, Experience	Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written), Activity Participation

**Course Schedule**

Week	Date	Course Contents	Note
1	110/02/22 ~ 110/02/28	Course Overview and Introduction	
2	110/03/01 ~ 110/03/07	Review of Database system and DBMS	
3	110/03/08 ~ 110/03/14	Introduction to Data Mining	
4	110/03/15 ~ 110/03/21	Introduction to Data Mining	
5	110/03/22 ~ 110/03/28	Data Preprocessing	
6	110/03/29 ~ 110/04/04	Teaching administration observation period & National holidays	
7	110/04/05 ~ 110/04/11	Example application and case study	
8	110/04/12 ~ 110/04/18	Example application and case study	
9	110/04/19 ~ 110/04/25	Data Mining Software	
10	110/04/26 ~ 110/05/02	Midterm Exam Week	

11	110/05/03 ~ 110/05/09	Mining Frequent Patterns, Associations, and Correlations	
12	110/05/10 ~ 110/05/16	Mining Frequent Patterns, Associations, and Correlations	
13	110/05/17 ~ 110/05/23	Classification and Prediction	
14	110/05/24 ~ 110/05/30	Classification and Prediction	
15	110/05/31 ~ 110/06/06	Graduate Exam Week	
16	110/06/07 ~ 110/06/13	---	
17	110/06/14 ~ 110/06/20	---	
18	110/06/21 ~ 110/06/27	---	
Requirement			
Teaching Facility		Computer, Projector	
Textbooks and Teaching Materials		Jiawei Han, Micheline Kamber, Jian Pei, Data Mining – Concepts and Techniques, 3rd edition, Morgan Kaufmann Publishers	
References			
Number of Assignment(s)		(Filled in by assignment instructor only)	
Grading Policy		◆ Attendance :            %    ◆ Mark of Usual : 40.0 %    ◆ Midterm Exam : 15.0 % ◆ Final Exam :    5.0 % ◆ Other 〈Course project〉 : 40.0 %	
Note		This syllabus may be uploaded at the website of Course Syllabus Management System at <a href="http://info.ais.tku.edu.tw/csp">http://info.ais.tku.edu.tw/csp</a> or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a> . <b>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</b>	