Tamkang University Academic Year 105, 2nd Semester Course Syllabus

Course Title	APPLICATION OF COMMERCIAL SOFTWARE	Instructor	CHEN-CHIEH CHEN
Course Class	TLFXB3A DEPARTMENT OF INTERNATIONAL BUSINESS, 3A	Details	◆ Selective ◆ One Semester ◆ 2 Credits

Departmental Aim of Education

Ⅰ. To instill the university motto of "Simplicity, Firmness, Perseverance, and Fulfillment" into students.

Ⅱ. By integrating the "Five Disciplines" of education, the qualities of conduct, intelligence, physical education, teamwork, and beauty into the professional, core, and extracurricular curriculum, the department helps to produce well-rounded students skilled in identifying and solving problems.

Ⅲ. To oversee the trend and foresee the development of global economy, the department aims to produce the graduates with expertise in the fields of International Business and Trade.

Departmental core competences

A. Breeding professionals with expertise in general International Trade and International Business.

B. Consisting of Globalization, Information-Oriented and Future-Oriented education.

C. Producing graduates with capability of foreseeing and analyzing the development of Global Economy.

D. Breeding professionals with expertise in Marketing and Financial Management.

Course Introduction	Overview of the process of data analysis. Data analytics have moved out of the academic world of statisticians to the practical world of technology. A variety of user friendly technologies bring powerful analytical capabilities to end users. Three major areas that comprise analytics are reporting, visualization and prediction. This course uses the latest in technology to show the practice of data analytics in the real world. You will experience practical applications of analytics through guided exercises and case studies.

The Relevance among Teaching Objectives, Objective Levels and Departmental core competences

I.Objective Levels (select applicable ones) :

(i) Cognitive Domain : C1-Remembering, C2-Understanding, C3-Applying, C4-Analyzing, C5-Evaluating, C6-Creating

(ii) Psychomotor Domain : P1-Imitation, P2-Mechanism, P3-Independent Operation, P4-Linked Operation, P5-Automation, P6-Origination

(iii) Affective Domain : A1-Receiving, A2-Responding, A3-Valuing, A4-Organizing, A5-Charaterizing, A6-Implementing

II.The Relevance among Teaching Objectives, Objective Levels and Departmental core competences :

(i) Determine the objective level(s) in any one of the three learning domains (cognitive, psychomotor, and affective) corresponding to the teaching objective. Each objective should correspond to the objective level(s) of ONLY ONE of the three domains.

(ii) If more than one objective levels are applicable for each learning domain, select the highest one only. (For example, if the objective levels for Cognitive Domain include C3,C5,and C6, select C6 only and fill it in the boxes below. The same rule applies to Psychomotor Domain and Affective Domain.)

(iii) Determine the Departmental core competences that correspond to each teaching objective. Each objective may correspond to one or more Departmental core competences at a time. (For example, if one objective corresponds to three Departmental core competences: A,AD, and BEF, list all of the three in the box.)

No.	Teaching Objectives	Relevance	
		Objective Levels	Departmental core competences
1	Analyze data to generate information and knowledge that lead to informed decisions for businesses	C6	BC
2	Show how business intelligence can be derived from data warehouses	C3	BC
3	Derive insightful trends using data mining techniques	C5	BC
4	Apply the latest in analytics technology in real world case studies in the areas of business, entertainment, climate change etc.	C6	BC

Teaching Objectives, Teaching Methods and Assessment

No.	Teaching Objectives	Teaching Methods	Assessment
1	Analyze data to generate information and knowledge that lead to informed decisions for businesses	Lecture, Discussion, Simulation	Practicum, Report, Participation
2	Show how business intelligence can be derived from data warehouses	Lecture, Discussion, Simulation	Written test, Report, Participation
3	Derive insightful trends using data mining techniques	Lecture, Discussion, Simulation	Practicum, Report, Participation
4	Apply the latest in analytics technology in real world case studies in the areas of business, entertainment, climate change etc.	Lecture, Discussion, Simulation, Practicum, Problem solving	Practicum, Participation

This course has been designed to cultivate the following essential qualities in TKU students	
Essential Qualities of TKU Students	Description
◆ A global perspective	Helping students develop a broader perspective from which to understand international affairs and global development.
◆ Information literacy	Becoming adept at using information technology and learning the proper way to process information.
◆ A vision for the future	Understanding self-growth, social change, and technological development so as to gain the skills necessary to bring about one's future vision.
◇ Moral integrity	Learning how to interact with others, practicing empathy and caring for others, and constructing moral principles with which to solve ethical problems.
◆ Independent thinking	Encouraging students to keenly observe and seek out the source of their problems, and to think logically and critically.
◇ A cheerful attitude and healthy lifestyle	Raising an awareness of the fine balance between one's body and soul and the environment; helping students live a meaningful life.
◆ A spirit of teamwork and dedication	Improving one's ability to communicate and cooperate so as to integrate resources, collaborate with others, and solve problems.
◇ A sense of aesthetic appreciation	Equipping students with the ability to sense and appreciate aesthetic beauty, to express themselves clearly, and to enjoy the creative process.

Course Schedule

Week	Date	Subject/Topics	Note
1	106/02/13 ~ 106/02/19	Overview of the course	
2	106/02/20 ~ 106/02/26	Chapter 1 Course Introduction	
3	106/02/27 ~ 106/03/05	Chapter 10 Knowledge Discovery	
4	106/03/06 ~ 106/03/12	Chapter 11 – Descriptive data mining (Models for descriptive data mining)	
5	106/03/13 ~ 106/03/19	Chapter 11 – Descriptive data mining (Clustering)	
6	106/03/20 ~ 106/03/26	Chapter 11 – Descriptive data mining (Association analysis)	
7	106/03/27 ~ 106/04/02	Working on midterm report (I)	
8	106/04/03 ~ 106/04/09	Spring Break	
9	106/04/10 ~ 106/04/16	Working on midterm report (II)	Hand in midterm report
10	106/04/17 ~ 106/04/23	Midterm Exam Week	
11	106/04/24 ~ 106/04/30	Chapter 12 – Predictive data mining (Models for predictive data mining)	

12	106/05/01 ~ 106/05/07	Chapter 12 – Predictive data mining (Regression • Decision trees • Classification)	
13	106/05/08 ~ 106/05/14	Chapter 12 – Predictive data mining (Forecasting, time series analysis)	
14	106/05/15 ~ 106/05/21	Working on Final project: Use skills from the previous chapters to analyze data and make recommendations to improve business operations (I)	
15	106/05/22 ~ 106/05/28	Working on Final project: Use skills from the previous chapters to analyze data and make recommendations to improve business operations (II)	
16	106/05/29 ~ 106/06/04	Final project presentation (I)	
17	106/06/05 ~ 106/06/11	Final project presentation (II)	
18	106/06/12 ~ 106/06/18	Final Exam Week	

Requirement	* Instructor teaching website: https://sites.google.com/site/stevessschen/lecture * Teaching philosophy: high flexibility, joyful atmosphere for learning, inspiring students, experienced teacher, students harvesting + networking. * Midterm and Final will be replaced by group report and presentation.
Teaching Facility	Computer, Projector
Textbook(s)	Practical Analytics, 1st Edition 2015, Nitin Kalé, Epistemy Press (epistemypress.com) ISBN: 978-0-9856008-9-1. Available for purchase here http://epistemypress.com/books/practical-analytics/
Reference(s)	
Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 20.0 % ◆ Mark of Usual：20.0 % ◆ 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.**