

Tamkang University Academic Year 109, 2nd Semester Course Syllabus

Course Title	APPLICATION OF COMMERCIAL SOFTWARE	Instructor	CHEN-CHIEH CHEN
Course Class	TLFBB3A DIVISION OF GLOBAL COMMERCE, DEPARTMENT OF INTERNATIONAL BUSINESS (ENGLISH-TAUGHT PROGRAM), 3A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	<p>SDG9 Industry, Innovation, and Infrastructure</p> <p>SDG17 Partnerships for the goals</p>		
D e p a r t m e n t a l A i m o f E d u c a t i o n			
<p>I. To instill the university motto of "Simplicity, Firmness, Perseverance, and Fulfillment" into students.</p> <p>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.</p> <p>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.</p>			
Subject Departmental core competences			
<p>A. Breeding professionals with expertise in general International Trade and International Business.(ratio:50.00)</p> <p>C. Producing graduates with capability of foreseeing and analyzing the development of Global Economy.(ratio:50.00)</p>			
Subject Schoolwide essential virtues			
<p>2. Information literacy. (ratio:50.00)</p> <p>5. Independent thinking. (ratio:50.00)</p>			

Course Introduction	Data analytics have moved out of the academic world of statisticians to the practical world. A variety of user friendly tools bring powerful analytical capabilities to end users. This course will start with the tool called Weka, without any programming, to show the practice of data analytics in the real world, and move forward from Weka/SAS to automl5.com, an Automatic Machine Learning, to solve business problems. You will experience practical applications of analytics through guided exercises and case studies.
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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	Analyze data to generate information and knowledge that lead to informed decisions for businesses	Cognitive
2	Show how business intelligence can be derived from data warehouses	Cognitive
3	Derive insightful trends using data mining techniques	Cognitive
4	Apply the latest in analytics technology in real world case studies in the areas of business, entertainment, climate change etc.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	AC	25	Lecture, Discussion, Publication, Practicum, Experience	Testing, Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written)

2	AC	25	Lecture, Discussion, Publication, Practicum, Experience	Testing, Discussion(including classroom and online), Practicum, Report(including oral and written)
3	AC	25	Lecture, Discussion, Publication, Practicum, Experience	Testing, Discussion(including classroom and online), Practicum, Report(including oral and written)
4	AC	25	Lecture, Discussion, Publication, Practicum, Experience	Testing, Discussion(including classroom and online), Practicum, Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	110/02/22 ~ 110/02/28	Overview of the course	
2	110/03/01 ~ 110/03/07	1. What' s it all about?	
3	110/03/08 ~ 110/03/14	1. What' s it all about?	
4	110/03/15 ~ 110/03/21	2. Input: Concepts, instances, attributes	
5	110/03/22 ~ 110/03/28	3. Output: Knowledge representation	
6	110/03/29 ~ 110/04/04	National Holiday	Class OFF
7	110/04/05 ~ 110/04/11	4. Algorithms: The basic methods	
8	110/04/12 ~ 110/04/18	Working on midterm exercise (I)	
9	110/04/19 ~ 110/04/25	Working on midterm exercise (II)	
10	110/04/26 ~ 110/05/02	Midterm Exam Week	
11	110/05/03 ~ 110/05/09	5. Credibility: Evaluating what' s been learned	
12	110/05/10 ~ 110/05/16	6. Trees and rules	
13	110/05/17 ~ 110/05/23	7. Extending instance-based and linear models	
14	110/05/24 ~ 110/05/30	8. Data transformations	
15	110/05/31 ~ 110/06/06	Final project presentation (I)	
16	110/06/07 ~ 110/06/13	Final project presentation (II)	

17	110/06/14~ 110/06/20	Course Review and Future Perspective	
18	110/06/21~ 110/06/27	Final Exam Week	
Requirement	<p>* Instructor teaching website: https://sites.google.com/site/steve555chen/lecture</p> <p>We will start with Weka, a tool for data analysis and machine learning, and move forward from Weka/SAS to automl5.com, an Automatic Machine Learning, to solve business problems without writing any codes.</p> <p>Grading Policy: (Students who skip class 3 times will be flunked!)</p> <p>* Teaching philosophy: high flexibility, joyful atmosphere for learning, inspiring students, experienced teacher, students harvesting + networking.</p> <p>* Midterm and Final will be replaced by exercise and group report presentation.</p>		
Teaching Facility	Computer, Projector		
Textbooks and Teaching Materials	<p>No Textbook! Instructor will write his own teaching material =></p> <p>https://sites.google.com/site/ntut4point0/products => see Cases Study in the web page for more info.</p>		
References	<p>Reference ONLY => ppt download => https://www.cs.waikato.ac.nz/ml/weka/book.html</p> <p>=> We will ONLY cover a few chapters.</p>		
Number of Assignment(s)	(Filled in by assignment instructor only)		
Grading Policy	<p>◆ Attendance : % ◆ Mark of Usual : 30.0 % ◆ Midterm Exam : 30.0 %</p> <p>◆ Final Exam : 40.0 %</p> <p>◆ Other () : %</p>		
Note	<p>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.</p> <p>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</p>		