Course Title	INTRODUCTION AND APPLICATION TO BIG DATA ANALYSIS	Instructor	CHIA-LING CHANG
Course Class	TABXB3P DEPARTMENT OF INFORMATION AND LIBRARY SCIENCE, 3P	Details	◆ Blended Course ◆ Selective ◆ One Semester ◆ 2 Credits

Relevance to SDGs	SDG5 Gender equality SDG8 Decent work and economic growth SDG9 Industry, Innovation, and Infrastructure SDG10 Reducing inequalities

Departmental Aim of Education

Our mission is to educate and train library and information professionals.

Subject Departmental core competences

A. To understand concepts relating to library and information science and to grasp the relevant trends.(ratio:5.00)

B. To acquire professional abilities to develop, organize, preserve and integrate all sorts of information resources.(ratio:15.00)

C. To understand concepts relating to information technology and systems, and be able to put them in use.(ratio:30.00)

D. To acquire communication and coordination skills required for the information services. (ratio:20.00)

E. To acquire management skills required by different types of libraries and information organizations.(ratio:10.00)

F. To acquire professional skills to manage electronic documents and archives.(ratio:10.00)

G. To acquire integration ability of library services and traditional publishing.(ratio:5.00)

H. To acquire integration ability of library services and digital publishing.(ratio:5.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:25.00)

3. A vision for the future. (ratio:10.00)

4. Moral integrity. (ratio:10.00)

5. Independent thinking. (ratio:20.00)

6. A cheerful attitude and healthy lifestyle. (ratio:5.00)

	7. A spirit of teamwork and dedication. (ratio:10.00)
	8. A sense of aesthetic appreciation. (ratio:10.00)
Course Introduction	The purpose of this course is to guide students to construct big data thinking brains and interpret big data through the introduction and application of big data, and teach practical big data analysis, so that students can understand data through data analysis.

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 understand and be able to construct big data thinking	Cognitive
2	Students will understand and be able to apply the big data mining methods of Classification	Cognitive
3	Students will understand and be able to apply the big data mining methods of Cluster Analysis.	Cognitive
4	Students will understand and be able to apply the big data mining methods of Association Analysis	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCD	12345	Lecture, Discussion	Discussion(including classroom and online), Report(including oral and written), classroom activity

2	CDEF	23678	Lecture, Discussion, Practicum	Study Assignments, Discussion(including classroom and online), Report(including oral and written)
3	DFGH	1235678	Lecture, Discussion	Discussion(including classroom and online), Report(including oral and written), Activity Participation
4	BDE	123568	Lecture, Discussion	Study Assignments, Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Note for Blended Course : When utilizing weekly digital instruction, please fill in "Online Asynchronous Instruction".

Week	Date	Course Contents	Note
1	113/02/19 ~ 113/02/25	Intorduction	
2	113/02/26 ~ 113/03/03	228 holiday (No class)	
3	113/03/04 ~ 113/03/10	Introduction to Big data	
4	113/03/11 ~ 113/03/17	statistic and big data 1	(Online Asynchronous Instruction)
5	113/03/18 ~ 113/03/24	statistic and big data 2	(Online Asynchronous Instruction)
6	113/03/25 ~ 113/03/31	Introduction to Weka and Classification Analysis 1	
7	113/04/01 ~ 113/04/07	Teaching administration observation period (No class)	
8	113/04/08 ~ 113/04/14	Classification Analysis	
9	113/04/15 ~ 113/04/21	Midterm report	(Personal report : submit the report before 4/17 23:59)
10	113/04/22 ~ 113/04/28	Cluster Analysis 1	
11	113/04/29 ~ 113/05/05	Cluster Analysis 2	
12	113/05/06 ~ 113/05/12	Time serial Analysis	(Online Asynchronous Instruction)
13	113/05/13 ~ 113/05/19	open databases and big data analysis	(Online Asynchronous Instruction)
14	113/05/20 ~ 113/05/26	team disscussion	
15	113/05/27 ~ 113/06/02	Final group report 1	

16	113/06/03 ~ 113/06/09	Final group report 2	
17	113/06/10 ~ 113/06/16	Final group report 3	
18	113/06/17 ~ 113/06/23	Confirm the grades of this semester online (if you do not attend and there is no confirmation within one week, the grades of this semester will be deemed to be confirmed)	Only in L507

Key capabilities	Information Technology Problem solving
Interdisciplinary	
Distinctive teaching	
Course Content	Logical Thinking
Requirement	1. Be sure to attend your first class. If you have any questions, please ask the question and discuss it with the teacher in the first class. 2. If you do not attend the first class, please do not select this class. 3. This is a bilingual course. The teaching method is English lectures. Keywords are only taught in English. However, the entire lecture, including practical explanations and software, is only in Chinese. If you cannot accept it, please do not choose this course. 4. The second class is classroom activities (data analysis and implementation), accounting for 30% of the entire semester, and must be completed even if you ask for leave (if you have any questions, you can discuss with the teacher) 5. There will be no midterm or final exams, and the assessment method will be in the form of individual and group reports.
Textbooks and Teaching Materials	Self-made teaching materials:Handouts Using teaching materials from other writers:Handouts, Videos
References	
Grading Policy	◆ Attendance： 10.0 ％ ◆ Mark of Usual： ％ ◆ Midterm Exam： 30.0 ％ ◆ Final Exam： 30.0 ％ ◆ Other〈classroom activity〉：30.0 ％

Note	1. This syllabus may be uploaded at the website of the Course Syllabus Management System at https://info.ais.tku.edu.tw/csp or through the link of the Course Syllabus Upload posted on the home page of the TKU Office of Academic Affairs http://www.acad.tku.edu.tw/CS/main.php 2. According to the Implementation regulations of distance education for junior college and above are prescribed pursuant to Article 2, "The distance learning course referred to in these Measures refers to more than one-half of the teaching hours in each subject." 3. According to the regulations of Tamkang University Enforcement Rules for digital teaching, Paragraph 2 and Article 3, the distance learning course of our school must be "The course of digital teaching with distance learning platform or synchronous video system in our school. Teaching Hours include course lectures, teacher-student interaction discussions, quizzes and other learning activities." 4. If there are any temporary course changes (including time changes and classroom changes of distance learning courses, blended courses), please make out an application according to regulations to the Office of Academic Affairs. **※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**