

Tamkang University Academic Year 110, 2nd Semester Course Syllabus

Course Title	INFORMATION VISUALIZATION	Instructor	CHIA-LING CHANG
Course Class	TABXB2P DEPARTMENT OF INFORMATION AND LIBRARY SCIENCE, 2P	Details	<ul style="list-style-type: none"> ◆ Blended Course ◆ Selective ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG4 Quality education SDG8 Decent work and economic growth SDG10 Reducing inequalities		
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			
Our mission is to educate and train library and information professionals.			
Subject Departmental core competences			
C. To understand concepts relating to information technology and systems, and be able to put them in use.(ratio:20.00) D. To acquire communication and coordination skills required for the information services. (ratio:40.00) F. To acquire professional skills to manage electronic documents and archives.(ratio:40.00)			
Subject Schoolwide essential virtues			
2. Information literacy. (ratio:40.00) 5. Independent thinking. (ratio:20.00) 7. A spirit of teamwork and dedication. (ratio:20.00) 8. A sense of aesthetic appreciation. (ratio:20.00)			
Course Introduction	This course cultivates talents who use visualization tools to present and analyze data. The course ranges from an introduction to image communication to basic concepts of visualization, various data characteristics, and corresponding visualization analysis methods, to statistical methods used in data visualization. This class focuses on graphic narration and teaches students to quickly interpret and discover key issues from data. This course mainly uses Excel, Tableau, word cloud, and other visualization tools.		

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 be able to employ big data visualization.	Psychomotor
3	Students will interpret and understand information visualization.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	CDF	2578	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written), Activity Participation
2	CDF	2578	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written)
3	CDF	2578	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	111/02/21 ~ 111/02/25	Introduction	
2	111/02/28 ~ 111/03/04	228 Memorial Day	
3	111/03/07 ~ 111/03/11	Information Visualization and Image Communication	

4	111/03/14 ~ 111/03/18	Visualization in narrative statistics applications and examples	Online Asynchronous Instruction
5	111/03/21 ~ 111/03/25	Visualization in inferential statistics applications and examples	Online Asynchronous Instruction
6	111/03/28 ~ 111/04/01	Big Data analysis- interpreting and understanding data&Telling Stories with Data Visualization	
7	111/04/04 ~ 111/04/08	Spring Festival	
8	111/04/11 ~ 111/04/15	Midterm Group report 1	
9	111/04/18 ~ 111/04/22	Midterm Group report 2	
10	111/04/25 ~ 111/04/29	Midterm Exam Week	
11	111/05/02 ~ 111/05/06	Data processing with Excel	Online Asynchronous Instruction
12	111/05/09 ~ 111/05/13	Quantitative chart with Excel and Tableau	Online Asynchronous Instruction
13	111/05/16 ~ 111/05/20	Big data analysis and data exploration with Tableau	
14	111/05/23 ~ 111/05/27	Understand the meaning of the data through a variety of different visualization charts with Tableau	
15	111/05/30 ~ 111/06/03	Group report 1	
16	111/06/06 ~ 111/06/10	Group report 2	
17	111/06/13 ~ 111/06/17	Comprehensive discussion	
18	111/06/20 ~ 111/06/24	Final Exam Week	
Requirement	<ol style="list-style-type: none"> 1. Be sure to attend the first class. If you have any questions, please make a request in the first class. 2. If you did not attend the first class, please do not select this class. 3. The teaching method is English materials (slides, dataset, Tableau, not including Excel) 4. Most oral teaching uses Chinese, and a small part uses English 5. Each class has a classroom activity (assignments implementation), which accounts for 30% of the entire semester, and it must be completed even if you ask for leave. (if you have any questions, you can discuss them with the teacher.) 6. There are no mid-term and final exams, and the assessments will be conducted in a midterm personal report and final group report. 		
Teaching Facility	Computer		
Textbooks and Teaching Materials	資料視覺化製作充滿說服力的資訊圖表·歐萊禮出版。		
References			

Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	<p>◆ Attendance : 10.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 30.0 %</p> <p>◆ Final Exam : 30.0 %</p> <p>◆ Other (assignments) : 30.0 %</p>
Note	<p>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</p> <p>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."</p> <p>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."</p> <p>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.</p> <p>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</p>