Tamkang University Academic Year 109, 1st Semester Course Syllabus

Course Title	NUMERICAL ANALYSIS	Instructor	WU, SHIH-JUNG
Course Class	TQICB3A DIVISION OF SOFTWARE ENGINEERING, DEPARTMENT OF INNOVATIVE INFORMATION AND TECHNOLOGY (ENGLISH-TAUGHT PROGRAM), 3A	Details	◆ General Course ◆ Selective ◆ One Semester

Departmental Aim of Education

Cultivate professional talents in developing and applying information system in various fields.

Subject Departmental core competences

B. Capability of applying basic mathematics and information technology related mathematics(ratio:100.00)

Subject Schoolwide essential virtues

2. Information literacy. (ratio:70.00)

5. Independent thinking. (ratio:30.00)

Course Introduction	Train students to apply the theoretical methods of big data analysis, such as Classification, Trend analysis, Clustering, Association, Sequence pattern, Machine learning, and the ability to independently complete application data mining and big data analysis techniques to solve real problems.

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	Train students to apply the theoretical methods of big data analysis, such as Classification, Trend analysis, Clustering, Association, Sequence pattern, Machine learning, and the ability to independently complete application data mining and big data analysis techniques to solve real problems.	Cognitive

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

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

Course Schedule

Week	Date	Course Contents	Note
1	109/09/14～ 109/09/20	Introduction	
2	109/09/21～ 109/09/27	Classification	
3	109/09/28～ 109/10/04	Classification	
4	109/10/05～ 109/10/11	Trend analysis	
5	109/10/12～ 109/10/18	Trend analysis	
6	109/10/19～ 109/10/25	Trend analysis	
7	109/10/26～ 109/11/01	Clustering	
8	109/11/02～ 109/11/08	Clustering	
9	109/11/09～ 109/11/15	Clustering	

10	109/11/16 ~ 109/11/22	Midterm Exam Week	
11	109/11/23 ~ 109/11/29	Association	
12	109/11/30 ~ 109/12/06	Association	
13	109/12/07 ~ 109/12/13	Association	
14	109/12/14 ~ 109/12/20	Machine Learning	
15	109/12/21 ~ 109/12/27	Machine Learning	
16	109/12/28 ~ 110/01/03	Machine Learning	
17	110/01/04 ~ 110/01/10	Machine Learning	
18	110/01/11 ~ 110/01/17	Final Exam Week	

Requirement	
Teaching Facility	Computer
Textbooks and Teaching Materials	Related references
References	
Number of Assignment(s)	3 (Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 60.0 % ◆ Mark of Usual： % ◆ Midterm Exam： % ◆ Final Exam： % ◆ Other〈Report〉：40.0 %
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.**