Course Title	DATA STRUCTURES	Instructor	FENG-CHENG CHANG
Course Class	TEIDB2A DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM), 2A	Details	◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG4 Quality education		

Departmental Aim of Education

Ⅰ. Comprehend professional knowledge.

Ⅱ. Acquire mastery of Practical Skills.

Ⅲ. Establish creative achievement.

Subject Departmental core competences

A. Programming and application ability.(ratio:40.00)

B. Mathematical reasoning ability.(ratio:15.00)

C. Implementing computer systems ability.(ratio:15.00)

D. Computer networking application skills.(ratio:15.00)

E. Professional skills for information technology (IT) industry.(ratio:15.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:30.00)

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

4. Moral integrity. (ratio:20.00)

5. Independent thinking. (ratio:15.00)

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

7. A spirit of teamwork and dedication. (ratio:5.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction		This course focus on using C programming language to solve special problem for application and computer. It emphasizes data storage, fetch, algorithms design and complexity evaluation

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	Understanding the basic concepts for data structure	Cognitive
2	Promoting programming ability.	Cognitive
3	To possess the ability for algorithms design and evaluation.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	AB	125	Lecture	Testing
2	ACDE	45678	Lecture	Testing
3	BC	235	Lecture	Testing

Course Schedule

Week	Date	Course Contents	Note
1	111/09/05 ~ 111/09/11	Introduction and Review of Structures	
2	111/09/12 ~ 111/09/18	Review of Structures	
3	111/09/19 ~ 111/09/25	Review of Pointers	

4	111/09/26～111/10/02	Linked Lists	
5	111/10/03～111/10/09	Linked Lists	
6	111/10/10～111/10/16	Stacks and Queues	
7	111/10/17～111/10/23	Stacks and Queues	
8	111/10/24～111/10/30	Introduction to Binary Trees	
9	111/10/31～111/11/06	Introduction to Binary Trees	
10	111/11/07～111/11/13	Midterm Exam Week	
11	111/11/14～111/11/20	Introduction to Binary Trees	
12	111/11/21～111/11/27	Sorting	
13	111/11/28～111/12/04	Sorting	
14	111/12/05～111/12/11	Graphs	
15	111/12/12～111/12/18	Graphs	
16	111/12/19～111/12/25	Hashing	
17	111/12/26～112/01/01	Hashing	
18	112/01/02～112/01/08	Final Exam Week	

Requirement	The assignments include homework and quizzes/exams. There is no make-up assignment if you miss it without a reason.
Teaching Facility	Computer
Textbooks and Teaching Materials	Data Structures In C by Noel Kalicharan (Aug 11, 2008) E. Horowitz et al., Fundamentals of Data Structures in C, 2/e
References	C/C++/Java related materials
Number of Assignment(s)	**6** (Filled in by assignment instructor only)
Grading Policy	◆ Attendance： % ◆ Mark of Usual：50.0 % ◆ Midterm Exam： 20.0 % ◆ Final Exam： 20.0 % ◆ Other〈control points〉：10.0 %

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 .
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