Tamkang University Academic Year 113, 1st Semester Course Syllabus

Course Title	COMPUTER PROGRAMMING	Instructor	FENG-CHENG CHANG
Course Class	TEIDB1A DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM), 1A	Details	◆ General Course ◆ Required ◆ One Semester ◆ 3 Credits
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:5.00)

2. Information literacy. (ratio:30.00)

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

4. Moral integrity. (ratio:10.00)

5. Independent thinking. (ratio:30.00)

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	Introduce the concepts of programs and flows, learn how to represent a solution in a procedural style, and finally implement in C language.

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	Concepts of programming and execution flows	Cognitive
2	Analyze the execution of a program and illustrate it by a flow chart	Psychomotor
3	Implement a program flow by the C language	Psychomotor

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABE	123568	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online)
2	ABCDE	12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online)
3	ABCDE	12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online)

Course Schedule

Week	Date	Course Contents	Note

1	113/09/09 ~ 113/09/15	Introduction to Computer Programs	
2	113/09/16 ~ 113/09/22	Problem Solving by Procedural Approach (1)	
3	113/09/23 ~ 113/09/29	Problem Solving by Procedural Approach (2)	
4	113/09/30 ~ 113/10/06	Basic Programming Language Elements	
5	113/10/07 ~ 113/10/13	Introduction to C (1)	
6	113/10/14 ~ 113/10/20	Introduction to C (2)	
7	113/10/21 ~ 113/10/27	Lexical Structure of C (1)	
8	113/10/28 ~ 113/11/03	Lexical Structure of C (2)	
9	113/11/04 ~ 113/11/10	Midterm Exam Week	
10	113/11/11 ~ 113/11/17	Lexical Structure of C (3)	
11	113/11/18 ~ 113/11/24	Modules	
12	113/11/25 ~ 113/12/01	Realize Your Algorithm Using C (1)	
13	113/12/02 ~ 113/12/08	Realize Your Algorithm Using C (2)	
14	113/12/09 ~ 113/12/15	More on Pointers and Arrays	
15	113/12/16 ~ 113/12/22	More on formatted input/output	
16	113/12/23 ~ 113/12/29	Files	
17	113/12/30 ~ 114/01/05	Final Exam Week	
18	114/01/06 ~ 114/01/12	Flex week, learning activities should be arranged.	MSTeams sessions for learning supplementary topics
Key capabilities		Information Technology	
Interdisciplinary			
Distinctive teaching			

Course Content	Computer programming or Computer language (students have hands-on experience in related projects)
Requirement	The assignments include homework and quizzes/exams. There is no make-up assignment if you miss it without a proper reason.
Textbooks and Teaching Materials	Self-made teaching materials:Presentations, Handouts Using teaching materials from other writers:Textbooks, Videos, Tutorial websites Name of teaching materials: K. N. King, C Programming - A Modern Approach, 2nd Ed., W. W. Norton & Company, Inc., 2008.
References	W. Savitch, Problem Solving with C++, 8th Ed., Pearson International Edition, Addison Wesley, 2012.
Grading Policy	◆ Attendance： % ◆ Mark of Usual：10.0 % ◆ Midterm Exam： 15.0 % ◆ Final Exam： 15.0 % ◆ Other〈assignment and quiz〉：60.0 %
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.**