Tamkang University Academic Year 104, 1st Semester Course Syllabus

Course Title	LANGUAGE STRUCTURES	Instructor	HUANG-WEN HUANG
Course Class	TQICB2A DIVISION OF SOFTWARE ENGINEERING, DEPARTMENT OF INNOVATIVE INFORMATION AND TECHNOLOGY (ENGLISH-TAUGHT PROGRAM), 2A	Details	◆ Selective ◆ One Semester ◆ 3 Credits

Departmental Aim of Education

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

Departmental core competences

A. Capability of computer program coding, process planning, and problem solving

B. Capability of applying basic mathematics and information technology related mathematics

C. Capability of applying knowledge of internet structure and protocol in communication system

D. Capability of developing information system

E. Capability of integrating information system

Course Introduction	This course will teach the students to be familiar with the concepts of programming languages. It will enable the students, increased capacity to express ideas, improved background for choosing appropriate languages, increased ability to learn new languages, better understanding of the significance of implementation and overall advancement of computing.

The Relevance among Teaching Objectives, Objective Levels and Departmental core competences

I.Objective Levels (select applicable ones) :
 (i) Cognitive Domain   : C1-Remembering,   C2-Understanding,   C3-Applying,
                           C4-Analyzing,   C5-Evaluating,   C6-Creating
 (ii) Psychomotor Domain : P1-Imitation,   P2-Mechanism,   P3-Independent Operation,
                           P4-Linked Operation, P5-Automation,   P6-Origination
 (iii) Affective Domain : A1-Receiving,   A2-Responding,   A3-Valuing,
                           A4-Organizing,   A5-Charaterizing,   A6-Implementing

II.The Relevance among Teaching Objectives, Objective Levels and Departmental core competences :
 (i) Determine the objective level(s) in any one of the three learning domains (cognitive, psychomotor, and affective) corresponding to the teaching objective. Each objective should correspond to the objective level(s) of ONLY ONE of the three domains.
 (ii) If more than one objective levels are applicable for each learning domain, select the highest one only. (For example, if the objective levels for Cognitive Domain include C3,C5,and C6, select C6 only and fill it in the boxes below. The same rule applies to Psychomotor Domain and Affective Domain.)
 (iii) Determine the Departmental core competences that correspond to each teaching objective. Each objective may correspond to one or more Departmental core competences at a time. (For example, if one objective corresponds to three Departmental core competences: A,AD, and BEF, list all of the three in the box.)

No.	Teaching Objectives	Relevance	
		Objective Levels	Departmental core competences
1	To introduce the concepts of computer programming languages and major evolution of computer programming languages.	C2	A
2	To introduce syntax and semantics of computer programming languages.	C2	A
3	To introduce technical terms in computer programming languages, such as variable name, binding, type checking and scope.	P3	A
4	To introduce technical terms in computer programming languages, such as variable name, binding, type checking and scope.	C4	A

Teaching Objectives, Teaching Methods and Assessment

No.	Teaching Objectives	Teaching Methods	Assessment
1	To introduce the concepts of computer programming languages and major evolution of computer programming languages.	Lecture, Discussion	Written test, Report
2	To introduce syntax and semantics of computer programming languages.	Lecture	Written test
3	To introduce technical terms in computer programming languages, such as variable name, binding, type checking and scope.	Lecture, Discussion, Practicum	Written test

4	To introduce technical terms in computer programming languages, such as variable name, binding, type checking and scope.	Lecture	Written test

This course has been designed to cultivate the following essential qualities in TKU students

Essential Qualities of TKU Students	Description
◇ A global perspective	Helping students develop a broader perspective from which to understand international affairs and global development.
◇ Information literacy	Becoming adept at using information technology and learning the proper way to process information.
◆ A vision for the future	Understanding self-growth, social change, and technological development so as to gain the skills necessary to bring about one's future vision.
◇ Moral integrity	Learning how to interact with others, practicing empathy and caring for others, and constructing moral principles with which to solve ethical problems.
◆ Independent thinking	Encouraging students to keenly observe and seek out the source of their problems, and to think logically and critically.
◇ A cheerful attitude and healthy lifestyle	Raising an awareness of the fine balance between one's body and soul and the environment; helping students live a meaningful life.
◇ A spirit of teamwork and dedication	Improving one's ability to communicate and cooperate so as to integrate resources, collaborate with others, and solve problems.
◇ A sense of aesthetic appreciation	Equipping students with the ability to sense and appreciate aesthetic beauty, to express themselves clearly, and to enjoy the creative process.

Course Schedule

Week	Date	Subject/Topics	Note
1	104/09/14 ~ 104/09/20	Preliminaries	
2	104/09/21 ~ 104/09/27	Evolution of the Major Programming Languages	
3	104/09/28 ~ 104/10/04	Describing Syntax	
4	104/10/05 ~ 104/10/11	Describing Semantics	
5	104/10/12 ~ 104/10/18	Lexical Analysis	
6	104/10/19 ~ 104/10/25	Parse Tree	
7	104/10/26 ~ 104/11/01	Syntax Analysis	
8	104/11/02 ~ 104/11/08	Names, Bindings	
9	104/11/09 ~ 104/11/15		
10	104/11/16 ~ 104/11/22	Midterm Exam Week	

11	104/11/23 ~ 104/11/29	Data Types	
12	104/11/30 ~ 104/12/06	Data Types	
13	104/12/07 ~ 104/12/13	Expressions Statement	
14	104/12/14 ~ 104/12/20	Assignment Statement	
15	104/12/21 ~ 104/12/27	Statement-Level Control Structures	
16	104/12/28 ~ 105/01/03	Subprograms 1	
17	105/01/04 ~ 105/01/10	Matlab programming language or project report	
18	105/01/11 ~ 105/01/17	Final Exam Week	

Requirement	1. The above grading policy may be changed during actual teaching circumstances to reflect teaching needs. 2. If a student's class absence reaches one-third of the total class hours (in a semester) for a particular course, the course instructor will notify the Office of Academic Affairs, and the student will not be allowed to take part in the remaining course examinations and will receive a semester grade (for that course) of zero. 依本校學則第三十八條第二款規定辦理扣考
Teaching Facility	Computer, Projector
Textbook(s)	Concepts of Programming Languages, by Robert W. Sebesta 7th edition
Reference(s)	
Number of Assignment(s)	**3** (Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 10.0 % ◆ Mark of Usual：20.0 % ◆ Midterm Exam： 30.0 % ◆ Final Exam： 20.0 % ◆ Other〈Report〉：20.0 %
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.**