

Tamkang University Academic Year 111, 1st Semester Course Syllabus

Course Title	INTRODUCTION TO COMPUTER AND COMPUTATIONAL THINKING	Instructor	FU-YI HUNG
Course Class	TNUOB0D INFORMATION EDUCATION, 0D	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG4 Quality education		
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			
<p>I. Development of information literacy.</p> <p>II. Development of computer skills.</p> <p>III. Building up information ethics.</p> <p>IV. Training of independent thinking.</p>			
Subject Schoolwide essential virtues			
<ol style="list-style-type: none"> 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:10.00) 6. A cheerful attitude and healthy lifestyle. (ratio:5.00) 7. A spirit of teamwork and dedication. (ratio:10.00) 8. A sense of aesthetic appreciation. (ratio:5.00) 			

Course Introduction	<p>This course provides an introductory survey of computer science. Progress of this course follows a bottom-up arrangement of subjects that proceeds from the concrete to the abstract. Course materials in this semester includes Number Systems, Computer Organization, Computer Networks, Operating Systems, and Intellectual Property Rights.</p>
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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	To understand how data are represented and manipulated in a computer	Cognitive
2	To understand how operating systems coordinate a computer's internal activities	Cognitive
3	To understand how computers constitute networks and share information	Cognitive
4	To understand what are intellectual property rights and their applications	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1		12345678	Lecture	Testing
2		12345678	Lecture	Testing
3		12345678	Lecture	Testing
4		12345678	Lecture	Testing

Course Schedule			
Week	Date	Course Contents	Note
1	111/09/05 ~ 111/09/11	Introduction	
2	111/09/12 ~ 111/09/18	Intellectual property	
3	111/09/19 ~ 111/09/25	Computer Programming - Number Systems	
4	111/09/26 ~ 111/10/02	Computer Programming - Number Systems	
5	111/10/03 ~ 111/10/09	Computer Programming - Data Storage	
6	111/10/10 ~ 111/10/16	Computer Programming - Data Storage	
7	111/10/17 ~ 111/10/23	Computer Programming - Data Storage	
8	111/10/24 ~ 111/10/30	Operations on Data	
9	111/10/31 ~ 111/11/06	Operations on Data	
10	111/11/07 ~ 111/11/13	Midterm Exam Week	
11	111/11/14 ~ 111/11/20	Computer Organization	
12	111/11/21 ~ 111/11/27	Computer Organization	
13	111/11/28 ~ 111/12/04	Computer Networks	
14	111/12/05 ~ 111/12/11	Computer Networks	
15	111/12/12 ~ 111/12/18	Operating System	
16	111/12/19 ~ 111/12/25	Operating System	
17	111/12/26 ~ 112/01/01	Security	
18	112/01/02 ~ 112/01/08	Final Exam Week	
Requirement		<p>Cheating or plagiarism will receive a semester grade of zero for this course. 作弊或抄襲者學期總成績為零分。</p> <p>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. 學生對某一科目之缺課總時數達該科全學期授課時數三分之一，經該科教師通知教務處時即不准參加該科目之考試，該科目學期成績以零分計算。</p>	

Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	Foundations of Computer Science, by Behrouz Forouzan, Cengage Learning, 4rd Edition, 2018 Discovering Computers 2018: Digital Technology, Data, and Devices, by M. Vermaat,etc., 1st Edition, 2017
References	計算機概論, B. Forouzan and F. Mosharraf 著, 林仁勇等譯, 歐亞書局, 第四版, 2018 Computer Science Illuminated, by Nell Dale and John Lewis, Jones and Bartlett Publishers, Inc., 7th Edition, 2019
Number of Assignment(s)	7 (Filled in by assignment instructor only)
Grading Policy	◆ Attendance : 10.0 % ◆ Mark of Usual : 10.0 % ◆ Midterm Exam : 20.0 % ◆ Final Exam : 20.0 % ◆ Other < Assignments > : 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.