

Tamkang University Academic Year 104, 1st Semester Course Syllabus

Course Title	THE WAY SCIENCE WORKS	Instructor	LEE, MING-HSIEN
Course Class	TNUUB1A NATURAL SCIENCES, 1A	Details	<ul style="list-style-type: none"> ◆ Required ◆ One Semester ◆ 2 Credits
Academic Aim of Education			
<p>By exploring natural laws and studying scientific methods, to let students understand the impact of science and technology on human life, and to cultivate in them the ability to think independently, and to discover, analyse and solve problems. Also, throu.</p>			
Schoolwide essential virtues			
<ul style="list-style-type: none"> A. A global perspective. B. Information literacy. C. A vision for the future. D. Moral integrity. E. Independent thinking. F. A cheerful attitude and healthy lifestyle. G. A spirit of teamwork and dedication. H. A sense of aesthetic appreciation. 			
Course Introduction	<p>Using easy-to-understand stories and pictures, this course explain to students the science principles and mechanism behind the everyday used technologies and products. This course is most relevant to "How Thing Works" types of knowledge.</p>		

The Relevance among Teaching Objectives, Objective Levels and Schoolwide essential virtues

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 Schoolwide essential virtues :

- (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 Schoolwide essential virtues that correspond to each teaching objective. Each objective may correspond to one or more Schoolwide essential virtues at a time. (For example, if one objective corresponds to three Schoolwide essential virtues: A,AD, and BEF, list all of the three in the box.)

No.	Teaching Objectives	Relevance	
		Objective Levels	Schoolwide essential virtues
1	Understand basic principles behind technologies.	C2	BCH

Teaching Objectives, Teaching Methods and Assessment

No.	Teaching Objectives	Teaching Methods	Assessment
1	Understand basic principles behind technologies.	Lecture, Discussion	Written test

Course Schedule

Week	Date	Subject/Topics	Note
1	104/09/14 ~ 104/09/20	Course Introduction	
2	104/09/21 ~ 104/09/27	How sicence works for urban and environmental technologies (1)	
3	104/09/28 ~ 104/10/04	How sicence works for urban and environmental technologies (2)	
4	104/10/05 ~ 104/10/11	How sicence works for urban and environmental technologies (3)	
5	104/10/12 ~ 104/10/18	How sceince works for domestic living technoloiges (1)	
6	104/10/19 ~ 104/10/25	How sceince works for domestic living technoloiges (2)	
7	104/10/26 ~ 104/11/01	How sceince works for audio / visual technoloiges (1)	

8	104/11/02 ~ 104/11/08	How science works for audio / visual technologies (2)	
9	104/11/09 ~ 104/11/15	How science works for computer and microchip technologies (1)	
10	104/11/16 ~ 104/11/22	Midterm Exam Week	
11	104/11/23 ~ 104/11/29	Mid-term exam answer announcement and re-mark	
12	104/11/30 ~ 104/12/06	How science works for computer and microchip technologies (2)	
13	104/12/07 ~ 104/12/13	How science works for communication technologies (1)	
14	104/12/14 ~ 104/12/20	How science works for communication technologies (2)	
15	104/12/21 ~ 104/12/27	How science works for consumer electronic technologies (1)	
16	104/12/28 ~ 105/01/03	How science works for consumer electronic technologies (2)	
17	105/01/04 ~ 105/01/10	How science works for office automation technologies	
18	105/01/11 ~ 105/01/17	Final Exam Week	
Requirement			
Teaching Facility	Computer, Projector		
Textbook(s)			
Reference(s)			
Number of Assignment(s)	(Filled in by assignment instructor only)		
Grading Policy	◆ Attendance : % ◆ Mark of Usual : % ◆ Midterm Exam : 50.0 % ◆ Final Exam : 50.0 % ◆ Other < > : %		
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.		