

Tamkang University Academic Year 102, 1st Semester Course Syllabus

Course Title	TECHNICAL MANUSCRIPT (I)	Instructor	CHEN KAN-NAN
Course Class	TEDXM1A MASTER'S PROGRAM, DEPARTMENT OF CHEMICAL AND MATERIALS ENGINEERING, 1A	Details	<ul style="list-style-type: none"> ◆ Selective ◆ One Semester ◆ 1 Credits
D e p a r t m e n t a l t e a c h i n g o b j e c t i v e s			
Education Objectives: Cultivation of chemical/materials engineering experts with professional knowledge and high R & D capabilities.			
D e p a r t m e n t a l c o r e c o m p e t e n c e s			
<ul style="list-style-type: none"> A. Possess the advanced knowledge of chemical/material engineering and to be able to use it. B. Capable to plan and execute the chemical/material engineering projects. C. Capable of writing professional papers. D. Capable of creative thinking and independent problem- solving. E. To have the inter-discipline communication and coordination skills with others. F. Possess wide global vision. G. Qualified capacity for leadership, management and planning. H. Capable to sustain the interdisciplinary self-training. 			
Course Introduction	<p>The essentials of English technical writing will be introduced and discussed. Reading and writing techniques will be focus and the different writing patterns will also be emphasized. Selected papers published in journals of chemical engineering and material engineering fields will be demonstrated and analyzed throughout this course.</p>		

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

I. Objective Levels (select applicable ones) :

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|-------------------------|-------------------------------------|---------------------------|
| (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-Characterizing, | 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	1. The graduate students are expected to learn the format of research papers and to master the essentials of technical writing. Enhancement of reading and writing capabilities is also expected through intensive reading of original papers. 2. Enhancement of reading and writing capabilities is also expected through intensive reading of original papers.	C6	F

Teaching Objectives, Teaching Methods and Assessment

No.	Teaching Objectives	Teaching Methods	Assessment
1	1. The graduate students are expected to learn the format of research papers and to master the essentials of technical writing. Enhancement of reading and writing capabilities is also expected through intensive reading of original papers. 2. Enhancement of reading and writing capabilities is also expected through intensive reading of original papers.	Lecture, Discussion, Appreciation	Report

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	102/09/16~ 102/09/22	Introduction	
2	102/09/23~ 102/09/29	Scientific publications (1)	
3	102/09/30~ 102/10/06	Scientific publications (2)	
4	102/10/07~ 102/10/13	Scientific publications (3)	
5	102/10/14~ 102/10/20	Scientific publications (4)	
6	102/10/21~ 102/10/27	Scientific publications (5)	
7	102/10/28~ 102/11/03	Pattern of technical writings (1)	
8	102/11/04~ 102/11/10	Pattern of technical writings (2)	
9	102/11/11~ 102/11/17	Pattern of technical writings (3)	
10	102/11/18~ 102/11/24	Midterm Exam Week	
11	102/11/25~ 102/12/01	Technical reports (1)	
12	102/12/02~ 102/12/08	Technical reports (2)	

13	102/12/09 ~ 102/12/15	Original Paper (1)	
14	102/12/16 ~ 102/12/22	Original Paper (2)	
15	102/12/23 ~ 102/12/29	Patents (1)	
16	102/12/30 ~ 103/01/05	Patents (2)	
17	103/01/06 ~ 103/01/12	Technical Paper Review	
18	103/01/13 ~ 103/01/19	Final Exam Week	
Requirement	Minimum English level is required.		
Teaching Facility	Computer, Other (black board)		
Textbook(s)	Self-organized teaching materials		
Reference(s)	Periodicals		
Number of Assignment(s)	(Filled in by assignment instructor only)		
Grading Policy	◆ Attendance : 20.0 % ◆ Mark of Usual : 40.0 % ◆ Midterm Exam : % ◆ Final Exam : % ◆ Other < term paper > : 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.		