

Tamkang University Academic Year 111, 2nd Semester Course Syllabus

Course Title	SEMINAR (IV)	Instructor	HO, CHII-DONG
Course Class	TEDXD2A DOCTORAL PROGRAM, DEPARTMENT OF CHEMICAL AND MATERIALS ENGINEERING, 2A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG4 Quality education SDG9 Industry, Innovation, and Infrastructure		
Departmental Aim of Education			
Education Objectives: Cultivation of chemical/materials engineering experts with professional knowledge and high research-and-development capability.			
Subject Departmental core competences			
A. Possess the advanced knowledge of chemical/material engineering and to be able to use it. (ratio:40.00) B. Capable to plan and execute the chemical/material engineering projects.(ratio:10.00) C. Capable of writing professional papers.(ratio:15.00) D. Capable of creative thinking and solving problem independently.(ratio:10.00) E. Capable to coordinate and integrate interdisciplinary cooperation.(ratio:5.00) F. Possess global vision.(ratio:5.00) G. Qualified capability for leadership, management and planning.(ratio:5.00) H. Capable of self-learning and self-growth.(ratio:10.00)			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:10.00) 2. Information literacy. (ratio:10.00) 3. A vision for the future. (ratio:15.00) 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:10.00) 8. A sense of aesthetic appreciation. (ratio:10.00)			

Course Introduction	This course will train the students to learn the methods of collecting, analyzing, organizing data, reading literature and writing reports.
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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 learn how to survey and read scientific literature.	Psychomotor
2	To learn about recent technologies of chemical and materials engineering	Cognitive
3	To learn how to prepare slides and give well-organized oral presentation.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDEFGH	12345678	Discussion	Discussion(including classroom and online), Report(including oral and written)
2	ABCDEFGH	12345678	Lecture, Discussion	Discussion(including classroom and online)
3	ABCDEFGH	12345678	Lecture, Discussion	Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
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1	112/02/13 ~ 112/02/19	Introduction	
2	112/02/20 ~ 112/02/26	Literature survey	
3	112/02/27 ~ 112/03/05	Literature survey	
4	112/03/06 ~ 112/03/12	Model building	
5	112/03/13 ~ 112/03/19	Model building	
6	112/03/20 ~ 112/03/26	Model building	
7	112/03/27 ~ 112/04/02	Mathematical formulations	
8	112/04/03 ~ 112/04/09	Mathematical formulations	
9	112/04/10 ~ 112/04/16	Mathematical formulations	
10	112/04/17 ~ 112/04/23	Experimental data collection	
11	112/04/24 ~ 112/04/30	Experimental data collection	
12	112/05/01 ~ 112/05/07	Experimental data analysis	
13	112/05/08 ~ 112/05/14	Experimental data analysis	
14	112/05/15 ~ 112/05/21	Theoretical validation	
15	112/05/22 ~ 112/05/28	Theoretical validation	
16	112/05/29 ~ 112/06/04	Oral presentation	
17	112/06/05 ~ 112/06/11	Oral presentation	
18	112/06/12 ~ 112/06/18	Oral presentation	
Requirement			
Teaching Facility		Computer, Projector	
Textbooks and Teaching Materials			
References		Steve Wallace, "How to write and submit an academic paper in 16 weeks" , Wallace Textbook(s) Academic Publishing, 2009	

Number of Assignment(s)	2 (Filled in by assignment instructor only)
Grading Policy	<ul style="list-style-type: none"> ◆ Attendance : 20.0 % ◆ Mark of Usual : 40.0 % ◆ Midterm Exam : % ◆ Final Exam : % ◆ Other (Oral presentation) : 40.0 %
Note	<p>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.</p> <p>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</p>