## Tamkang University Academic Year 113, 1st Semester Course Syllabus

Course Title	SEMINAR (I)	Instructor	KANG SHUNG-WEN
Course Class	TEBXD1A  DOCTORAL PROGRAM, DEPARTMENT OF  MECHANICAL AND ELECTRO-MECHANICAL  ENGINEERING, 1A	Details	<ul><li>General Course</li><li>Required</li><li>One Semester</li><li>1 Credits</li></ul>
Relevance to SDGs	SDG7 Affordable and clean energy SDG9 Industry, Innovation, and Infrastructure		

## Departmental Aim of Education

- I . To prepare students who have a comprehensive understanding of the principles of applied sciences and engineering to be innovators in the field of mechanical and electromechanical engineering.
- II. To train emerging professionals who possess a high level of expertise and ethical standards who will become independent research and development leaders in the industry.
- III. To motivate students who will pursue continuing education as a means to stay on the cutting edge of global competiveness and meet changes in their careers and the workplace with confidence and ease.

## Subject Departmental core competences

- A. Head: Knowledge of mechanical and electromechanical engineering.(ratio:50.00)
- B. Hand: Hands-on skills and practical realization.(ratio:10.00)
- C. Heart: Love of learning and innovation.(ratio:20.00)
- D. Eye: Vision of progress and improvements.(ratio:20.00)

## Subject Schoolwide essential virtues

- 1. A global perspective. (ratio:15.00)
- 2. Information literacy. (ratio:30.00)
- 3. A vision for the future. (ratio:5.00)
- 4. Moral integrity. (ratio:5.00)
- 5. Independent thinking. (ratio:30.00)
- 6. A cheerful attitude and healthy lifestyle. (ratio:5.00)
- 7. A spirit of teamwork and dedication. (ratio:5.00)
- 8. A sense of aesthetic appreciation. (ratio:5.00)

	This course is designed to help students learn how to study the idea, collection / compilation of relevant information, analysis and discussion of related research papers, books, and patents, decided to study methods, execution and problem solving.  Course Introduction						
dor I. (	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 Ob	pjectives	objective methods		
1	*	o explore and learn the motivation and the innovative purpose of  Cognitive cientific and engineering research.		Cognitive			
	The	correspond	dences of teaching objectives	: core competences, essential virtues, teaching me	ethods, and assessment		
No.	Core Compe	etences	Essential Virtues	Teaching Methods	Assessment		
1	ABCD		12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written), Activity Participation		
	Course Schedule						
Week	Date		Cou	rse Contents	Note		
1	113/09/09 ~ 113/09/15	Introduction					
2	113/09/16 ~ 113/09/22	Papers reading, analyzing and discussion					
3	113/09/23 ~ 113/09/29	Papers reading, analyzing and discussion					
4	113/09/30 ~ 113/10/06	Papers reading, analyzing and discussion					

5 111/2007 - 111/2007				
131/10/20	5		Papers reading, analyzing and discussion	
133/1027   Papers reading, analyzing and discussion	6		Papers reading, analyzing and discussion	
Bayes reading, analyzing and discussion   Papers reading, analyzin	7		Papers reading, analyzing and discussion	
9 133/11/10 Papers reading, analyzing and discussion 10 133/11/12 Papers reading, analyzing and discussion 11 135/11/28 Papers reading, analyzing and discussion 12 113/11/20 Papers reading, analyzing and discussion 13 113/12/00 Papers reading, analyzing and discussion 14 113/12/00 Papers reading, analyzing and discussion 15 113/12/15 Papers reading, analyzing and discussion 16 113/12/22 Papers reading, analyzing and discussion 17 113/12/20 Final Report/Presentation/Group Discussion 18 114/01/06 Final Report/Presentation/Group Discussion 18 114/01/06 Final Report/Presentation/Group Discussion  Key capabilities  Distinctive teaching  Course Content  Logical Thinking Green Energy	8		Papers reading, analyzing and discussion	
10 133/12/14 11 133/12/14 12 133/12/25 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 13 133/20/26 14 133/20/26 15 133/20/26 16 133/20/26 17 133/20/26 18 134/20/26 18 144/20/26 18 144/20/26 18 124/20/26  Course Content  Logical Thinking Green Energy  Midterm Report Papers reading, analyzing and discussion  10 133/20/26 11 133/20/26 12 133/20/26 13 133/20/26 13 133/20/26 14 13/20/26 15 13/20/28 16 13/20/28 17 13/20/29 18 144/20/26 19 144/2	9		Papers reading, analyzing and discussion	
11 13/11/25 Papers reading, analyzing and discussion 12 13/11/25 Papers reading, analyzing and discussion 13 13/12/20 Papers reading, analyzing and discussion 14 13/12/20 Papers reading, analyzing and discussion 15 13/12/20 Papers reading, analyzing and discussion 16 13/12/23 Final Report/Presentation/Group Discussion 17 13/12/30 Final Report/Presentation/Group Discussion 18 14/01/05 Final Report/Presentation/Group Discussion 18 14/01/06 Final Report/Presentation/Group Discussion  Key capabilities  Interdisciplinary  Distinctive teaching  Course Content  Logical Thinking Green Energy	10		Midterm Report	
12 13/12/01 Papers reading, analyzing and discussion  13 13/12/02 Papers reading, analyzing and discussion  14 13/12/09 Papers reading, analyzing and discussion  15 13/12/16 Papers reading, analyzing and discussion  16 13/12/29 Final Report/Presentation/Group Discussion  17 13/12/29 Final Report/Presentation/Group Discussion  18 14/01/05 Final Report/Presentation/Group Discussion  18 14/01/06 Final Report/Presentation/Group Discussion  Key capabilities  Distinctive teaching  Course Content  Logical Thinking Green Energy	11		Papers reading, analyzing and discussion	
13 13/12/08 Papers reading, analyzing and discussion  14 13/12/09— 113/12/12  15 13/12/12  16 13/12/23— 113/12/29 Final Report/Presentation/Group Discussion  17 11/01/05  18 11/02/05— 11/02/12  Key capabilities  Interdisciplinary  Distinctive teaching  Course Content  Logical Thinking Green Energy	12		Papers reading, analyzing and discussion	
14   133/12/15   Papers reading, analyzing and discussion     135/12/16   135/12/22   Papers reading, analyzing and discussion	13		Papers reading, analyzing and discussion	
15   113/12/22   Papers reading, analyzing and discussion   16   113/12/23   Final Report/Presentation/Group Discussion   17   113/12/30   Final Report/Presentation/Group Discussion   18   114/01/05   Final Report/Presentation/Group Discussion    Key capabilities    Interdisciplinary    Distinctive teaching    Course Content   Logical Thinking Green Energy    Course Content    Interdisciplinary    Logical Thinking Green Energy    Course Content    Course Con	14		Papers reading, analyzing and discussion	
113/12/29   Final Report/Presentation/Group Discussion     113/12/30   Final Report/Presentation/Group Discussion     114/01/05   Final Report/Presentation/Group Discussion     114/01/12   Final Report/Presentation/Group Discussion	15		Papers reading, analyzing and discussion	
17   114/01/05   Final Report/Presentation/Group Discussion    18   114/01/06 - 114/01/12   Final Report/Presentation/Group Discussion    Key capabilities	16		Final Report/Presentation/Group Discussion	
18   14/01/12   Final Report/Presentation/Group Discussion    Key capabilities   Interdisciplinary    Distinctive teaching   Logical Thinking Green Energy   Green Energy    Course Content   Course Cou	17		Final Report/Presentation/Group Discussion	
Interdisciplinary  Distinctive teaching  Course Content  Logical Thinking Green Energy	18		Final Report/Presentation/Group Discussion	
Distinctive teaching  Logical Thinking Green Energy	Кеу	/ capabilities		
teaching  Logical Thinking  Green Energy	Inte	er disciplinary		
Course Content Green Energy				
Requirement	Course Content			
	Requirement			

	Self-made teaching materials:Handouts		
Textbooks and Teaching Materials			
References			
	◆ Attendance: 15.0 % ◆ Mark of Usual:15.0 % ◆ Midterm Exam: 30.0 %		
Grading Policy	◆ Final Exam: 40.0 %		
Folicy	◆ 0ther ⟨ ⟩ : %		
	This syllabus may be uploaded at the website of Course Syllabus Management System at		
Note	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 <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a> .		
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