

Tamkang University Academic Year 113, 1st Semester Course Syllabus

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| Course Title | SEMINAR (I) | Instructor | KANG SHUNG-WEN |
| Course Class | TEBXD1A DOCTORAL PROGRAM, DEPARTMENT OF MECHANICAL AND ELECTRO-MECHANICAL ENGINEERING, 1A | Details | <ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester ◆ 1 Credits |
| 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 competitiveness 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) | | | |

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| Course Introduction | 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. |
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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 |
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| 1 | To explore and learn the motivation and the innovative purpose of scientific and engineering research. | Cognitive |

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

| No. | Core Competences | 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 | Course 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 | |

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| 5 | 113/10/07 ~ 113/10/13 | Papers reading, analyzing and discussion | |
| 6 | 113/10/14 ~ 113/10/20 | Papers reading, analyzing and discussion | |
| 7 | 113/10/21 ~ 113/10/27 | Papers reading, analyzing and discussion | |
| 8 | 113/10/28 ~ 113/11/03 | Papers reading, analyzing and discussion | |
| 9 | 113/11/04 ~ 113/11/10 | Papers reading, analyzing and discussion | |
| 10 | 113/11/11 ~ 113/11/17 | Midterm Report | |
| 11 | 113/11/18 ~ 113/11/24 | Papers reading, analyzing and discussion | |
| 12 | 113/11/25 ~ 113/12/01 | Papers reading, analyzing and discussion | |
| 13 | 113/12/02 ~ 113/12/08 | Papers reading, analyzing and discussion | |
| 14 | 113/12/09 ~ 113/12/15 | Papers reading, analyzing and discussion | |
| 15 | 113/12/16 ~ 113/12/22 | Papers reading, analyzing and discussion | |
| 16 | 113/12/23 ~ 113/12/29 | Final Report/Presentation/Group Discussion | |
| 17 | 113/12/30 ~ 114/01/05 | Final Report/Presentation/Group Discussion | |
| 18 | 114/01/06 ~ 114/01/12 | Final Report/Presentation/Group Discussion | |
| Key capabilities | | | |
| Interdisciplinary | | | |
| Distinctive teaching | | | |
| Course Content | | Logical Thinking Green Energy | |
| Requirement | | | |
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| Textbooks and Teaching Materials | Self-made teaching materials:Handouts |
| References | |
| Grading Policy | <p>◆ Attendance : 15.0 % ◆ Mark of Usual : 15.0 % ◆ Midterm Exam : 30.0 %</p> <p>◆ Final Exam : 40.0 %</p> <p>◆ Other () : %</p> |
| 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> |