Tamkang University Academic Year 113, 2nd Semester Course Syllabus

Course Title	EVOLUTION OF TECHNOLOGIES	Instructor	CHIA-CHI HUANG
Course Class	TNUZB0B GLOBAL TECHNOLOGY REVOLUTION, 0B	Details	◆ General Course ◆ Required ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG4 Quality education SDG5 Gender equality		

Departmental Aim of Education

Students will understand recent development of modern science and technology and its impact on human society and global environment. Through the design of course students will also be familiar with broadly-based fundamental technical knowledge and improve.

Subject Schoolwide essential virtues

1. A global perspective. (ratio:20.00)
2. Information literacy. (ratio:10.00)
3. A vision for the future. (ratio:20.00)
4. Moral integrity. (ratio:10.00)
5. Independent thinking. (ratio:10.00)
6. A cheerful attitude and healthy lifestyle. (ratio:10.00)
7. A spirit of teamwork and dedication. (ratio:10.00)
8. A sense of aesthetic appreciation. (ratio:10.00)

Course Introduction	We will focus on the revolution of chemistry, especially on Bio, Nano, Energy, and Generative AI this semester. All students will have two personal oral presentations and one AI homework in the class. We hope everyone can learn about basic knowledge and have scientific cognition from this course.

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	We hope everyone can learn about basic knowledge and have scientific cognition from this course.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1		12345678	Lecture, Experience, Oral	Report(including oral and written), Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	114/02/17 ~ 114/02/23	Introduction	
2	114/02/24 ~ 114/03/02	Chemical Education	
3	114/03/03 ~ 114/03/09	Applied Bio Materials (I)	
4	114/03/10 ~ 114/03/16	Applied Bio Materials (II)	
5	114/03/17 ~ 114/03/23	Applied Nano Materials (I)	
6	114/03/24 ~ 114/03/30	Applied Nano Materials (II)	
7	114/03/31 ~ 114/04/06	Teaching administration observation period	
8	114/04/07 ~ 114/04/13	Midterm Exam - Oral Presentation	
9	114/04/14 ~ 114/04/20	Midterm Exam - Oral Presentation	
10	114/04/21 ~ 114/04/27	Midterm Exam - Oral Presentation	
11	114/04/28 ~ 114/05/04	Applied Energy Materials (I)	
12	114/05/05 ~ 114/05/11	Applied Energy Materials (II)	

13	114/05/12～ 114/05/18	Applied Artificial Intelligence (AI)	
14	114/05/19～ 114/05/25	Generative AI for Chemical Posters	Homework
15	114/05/26～ 114/06/01	Final Exam - Oral Presentation	
16	114/06/02～ 114/06/08	Final Exam - Oral Presentation	
17	114/06/09～ 114/06/15	Final Exam - Oral Presentation	
18	114/06/16～ 114/06/22	AI supremacy: The artificial intelligence battle between China, USA and Europe in the virtual Classroom	

Key capabilities	self-directed learning Information Technology Social Participation
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)
Distinctive teaching	Learning technologies (such as AR/VR,etc.) incorporated to physical courses AI
Course Content	Logical Thinking Green Energy AI application
Requirement	The participants should have the responsibility for the personal oral presentation in two exams in time.
Textbooks and Teaching Materials	Using teaching materials from other writers:Textbooks, Videos, Journals
References	
Grading Policy	◆ Attendance： 30.0 % ◆ Mark of Usual： % ◆ Midterm Exam： 30.0 % ◆ Final Exam： 30.0 % ◆ Other〈Homework〉：10.0 %

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.**