Tamkang University Academic Year 114, 2nd Semester Course Syllabus

Course Title	CHEMISTRY IN LIFE	Instructor	YI-SIAGN WANG
Course Class	TNUUB0A NATURAL SCIENCES, 0A	Details	◆ General Course ◆ Required ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG3 Good health and well-being for people SDG9 Industry, Innovation, and Infrastructure SDG13 Climate action		

Departmental Aim of Education

By exploring natural laws and studying scientific methods, to let students understand the impact of science and technology on human life, and to cultivate in them the ability to think independently, and to discover, analyse and solve problems. Also, throu.

Subject Schoolwide essential virtues

1. A global perspective. (ratio:25.00)
2. Information literacy. (ratio:25.00)
3. A vision for the future. (ratio:10.00)
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:5.00)
8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction	CHEMISTRY, FOOD AND SOCIETY is a general education course designed for general audience. It explores the intersection of chemical technology, food science, and their impact on human life and society. Through accessible science articles and interactive discussions, students will engage with contemporary issues such as food safety, nutrition, sustainability, and the role of chemistry in technology and daily life. The course emphasizes critical thinking and communication skills, encouraging the use of English and AI applications as tools for learning and exploration.

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	This course aims to engage students with intriguing scientific topics related to food and chemistry, providing them with meaningful perspectives on issues of public concern. Throughout the semester, students will acquire scientific knowledge and develop the ability to think critically and rationally. A key objective is to empower students to identify and resist misinformation, enabling them to make informed decisions in their daily lives.	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, Discussion, Publication	Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	115/02/23 ~ 115/03/01	Introduction	
2	115/03/02 ~ 115/03/08	The Chemistry of Water	
3	115/03/09 ~ 115/03/15	Proteins and Amino Acids	
4	115/03/16 ~ 115/03/22	Pharmaceutical Chemistry	
5	115/03/23 ~ 115/03/29	Chemistry in Food	
6	115/03/30 ~ 115/04/05	Intermolecular Interactions in Daily Life	
7	115/04/06 ~ 115/04/12	Midterm Exam - Oral Presentation	
8	115/04/13 ~ 115/04/19	Midterm Exam - Oral Presentation	

9	115/04/20 ~ 115/04/26	Midterm Exam - Oral Presentation	
10	115/04/27 ~ 115/05/03	Midterm Exam - Oral Presentation	
11	115/05/04 ~ 115/05/10	Polymers in Daily Life	
12	115/05/11 ~ 115/05/17	Carbon Dioxide and Global Warming	
13	115/05/18 ~ 115/05/24	Chemistry and Semiconductor	
14	115/05/25 ~ 115/05/31	Data Analysis in Chemistry	
15	115/06/01 ~ 115/06/07	Holiday	
16	115/06/08 ~ 115/06/14	Final Week of Diverse Assessments	
17	115/06/15 ~ 115/06/21	Final Week of Diverse Assessments/Flexible Teaching Week for Teachers	
18	115/06/22 ~ 115/06/28	Flexible Teaching Week for Teachers	

Key capabilities	self-directed learning International mobility Information Technology Social Participation Humanistic Caring Interdisciplinary
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)
Distinctive teaching	
Course Content	Environmental Safety Green Energy AI application
Requirement	
Textbooks and Teaching Materials	Self-made teaching materials:Presentations Using teaching materials from other writers:Presentations

References	
Grading Policy	◆ Attendance： 40.0 % ◆ Mark of Usual： % ◆ Midterm Exam： 30.0 % ◆ Final Exam： 30.0 % ◆ Other〈 〉： %
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at https://web2.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. ※"Adhere to the concept of intellectual property rights" and "Do not illegally photocopy, download, or distribute." Using original textbooks is advised. It is a crime to improperly photocopy others' publications.