

Tamkang University Academic Year 113, 1st Semester Course Syllabus

Course Title	BIOTECHNOLOGY	Instructor	CHEN, YAU-HUNG
Course Class	TNUZB0D GLOBAL TECHNOLOGY REVOLUTION, 0D	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG3 Good health and well-being for people SDG14 Life below water SDG15 Life on land		
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			
<ol style="list-style-type: none"> 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	Under the architecture of technology, this course will lead students to the understanding of the origin and kinds of biotechnology by case studies, and the discussion of the concomitant ethics and legal issues, also exploration of the emerging newly developing frontiers of biotechnology.		

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	Understanding of the origin, kinds of biotechnology; discussion of the concomitant ethics and legal issues; exploration of the emerging newly developing frontiers of biotechnology.	Affective

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	Discussion(including classroom and online), Report(including oral and written), Oral presentation or face to face discus

Course Schedule

Week	Date	Course Contents	Note
1	113/09/09 ~ 113/09/15	Introduction	
2	113/09/16 ~ 113/09/22	What is technology? What is biotechnology?	
3	113/09/23 ~ 113/09/29	The Biotechnology Century and Its Workforce	
4	113/09/30 ~ 113/10/06	An Introduction to Genes and Genomes	
5	113/10/07 ~ 113/10/13	Holiday	
6	113/10/14 ~ 113/10/20	Recombinant DNA Technology and Genomics	
7	113/10/21 ~ 113/10/27	Proteins as Products	
8	113/10/28 ~ 113/11/03	DNA Fingerprinting and Forensic Analysis	
9	113/11/04 ~ 113/11/10	Lab visiting I	
10	113/11/11 ~ 113/11/17	Lab visiting II	

11	113/11/18 ~ 113/11/24	Animal Biotechnology	
12	113/11/25 ~ 113/12/01	Aquatic Biotechnology	
13	113/12/02 ~ 113/12/08	Medical Biotechnology	
14	113/12/09 ~ 113/12/15	Black Biotechnology - Bioterrorism	
15	113/12/16 ~ 113/12/22	Discussion I	
16	113/12/23 ~ 113/12/29	Discussion II	
17	113/12/30 ~ 114/01/05	Final Exam/Final Assessment Week (teachers can adjust the week as needed)	
18	114/01/06 ~ 114/01/12	Flexible Teaching Week: Generally, no in-person classes; teachers may arrange teaching activities or final assessments, among other options.	
Key capabilities			
Interdisciplinary			
Distinctive teaching			
Course Content		Logical Thinking Environmental Safety	
Requirement			
Textbooks and Teaching Materials		Using teaching materials from other writers:Presentations	
References			
Grading Policy		◆ Attendance : 30.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 10.0 % ◆ Final Exam : 40.0 % ◆ Other (Oral presentation) : 20.0 %	

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>.

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