

Tamkang University Academic Year 111, 2nd Semester Course Syllabus

Course Title	ADVANCED BIOTECHNOLOGY	Instructor	WANG SAN-LANG
Course Class	TSXAD2A DOCTORAL PROGRAM IN APPLIED SCIENCES, 2A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	SDG1 No poverty SDG2 Zero hunger SDG3 Good health and well-being for people SDG6 Clean water and sanitation		
Departmental Aim of Education			
To cultivate high-level spiritual talents demanded by industry and academia as well as with solid knowledge in material science and ability to do transnational and interdisciplinary research independently.			
Subject Departmental core competences			
A. To have solid knowledge and ability to carry out relevant research in material science. (ratio:25.00) B. To acquire capabilities in comprehensive vision and conducting transnational interdisciplinary research.(ratio:20.00) C. To obtain ability in innovation, independent thinking and independent research. (ratio:15.00) D. To have good oral and written skills as well as a good sense in teamwork.(ratio:20.00) E. To have a comprehensive understanding in professional morality and ethics.(ratio:20.00)			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:20.00) 2. Information literacy. (ratio:5.00) 3. A vision for the future. (ratio:15.00) 4. Moral integrity. (ratio:10.00) 5. Independent thinking. (ratio:15.00) 6. A cheerful attitude and healthy lifestyle. (ratio:5.00) 7. A spirit of teamwork and dedication. (ratio:10.00) 8. A sense of aesthetic appreciation. (ratio:20.00)			

Course Introduction	To learn about recent technologies of biotechnology, the methods of collecting,analyzing and organizing data,how to prepare slides and give an oral presentation and paper writing.
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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
1	To learn about recent technologies of biotechnology, the methods of collecting,analyzing and organizing data,how to prepare slides and give an oral presentation and write a report.	Cognitive
2	To learn the advance biotechnology recently	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDE	12345678	Lecture, Discussion, Publication	Testing, Discussion(including classroom and online), Report(including oral and written), 上課表現
2	ABCDE	1357	Lecture, Publication	Testing, Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note

1	112/02/13 ~ 112/02/19	Introduction	
2	112/02/20 ~ 112/02/26	Literature survey and data collecting	
3	112/02/27 ~ 112/03/05	Oral presentation	
4	112/03/06 ~ 112/03/12	Oral presentation	
5	112/03/13 ~ 112/03/19	Oral presentation	
6	112/03/20 ~ 112/03/26	Data analysis and organization	
7	112/03/27 ~ 112/04/02	Oral presentation	
8	112/04/03 ~ 112/04/09	Oral presentation	
9	112/04/10 ~ 112/04/16	Oral presentation	
10	112/04/17 ~ 112/04/23	Mid-term Exam	
11	112/04/24 ~ 112/04/30	how to prepare slides	
12	112/05/01 ~ 112/05/07	how to give a presentation	
13	112/05/08 ~ 112/05/14	how to give a presentation	
14	112/05/15 ~ 112/05/21	how to give a presentation	
15	112/05/22 ~ 112/05/28	Oral presentation	
16	112/05/29 ~ 112/06/04	Oral presentation	
17	112/06/05 ~ 112/06/11	Oral presentation	
18	112/06/12 ~ 112/06/18	Final exam	
Requirement			
Teaching Facility		Computer	
Textbooks and Teaching Materials		Steve Wallace, "How to write and submit an academic paper in 16 weeks" ,Wallace Academic Publishing, 2009	
References			

Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	◆ Attendance : 20.0 % ◆ Mark of Usual : 30.0 % ◆ Midterm Exam : % ◆ Final Exam : 30.0 % ◆ Other (report) : 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 . ※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.