

Tamkang University Academic Year 108, 1st Semester Course Syllabus

Course Title	GLOBAL ROBOT INDUSTRY TREND ANALYSIS AND PRACTICUM	Instructor	FU-YUEN HSIAO
Course Class	TNUZB0A GLOBAL TECHNOLOGY REVOLUTION, 0A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester
A c a d e m i c A i m o f E d u c a t i o n			
<p>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.</p>			
S u b j e c t S c h o o l w i d e e s s e n t i a l v i r t u e s			
<ol style="list-style-type: none"> 1. A global perspective. (ratio:70.00) 2. Information literacy. (ratio:10.00) 3. A vision for the future. (ratio:20.00) 			
Course Introduction	<p>To roughly understand the development of robots and robotic industries. Hopefully students will combine their specialty and knowledge from this course for further applications.</p>		
The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.			
<p>Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.</p> <p>I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of the course's veracity, conception, procedures, outcomes, etc.</p> <p>II.Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal, morals, attitude, conviction, values, etc.</p> <p>III.Psychomotor: Emphasis upon the study of the course's physical activity and technical manipulation.</p>			
No.	Teaching Objectives		objective methods

1	To roughly understand the development of robots and robotic industries. Hopefully students will combine their specialty and knowledge from this course for further applications.	Cognitive
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The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1		123	Lecture	Testing, Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	108/09/09 ~ 108/09/15	Syllabus	
2	108/09/16 ~ 108/09/22	History of Robot Development	
3	108/09/23 ~ 108/09/29	Introduction to Robots	
4	108/09/30 ~ 108/10/06	Introduction to Artificial Intelligence (AI)	
5	108/10/07 ~ 108/10/13	Introduction to Natural Language Processing (NLP)	
6	108/10/14 ~ 108/10/20	Introduction to Image Processing and Computer Vision	
7	108/10/21 ~ 108/10/27	Sensors and Actuators	
8	108/10/28 ~ 108/11/03	Domestic Robots	
9	108/11/04 ~ 108/11/10	Autonomous Car	
10	108/11/11 ~ 108/11/17	Midterm Exam Week	
11	108/11/18 ~ 108/11/24	Unmanned Aerial Vehicles (Drones)	
12	108/11/25 ~ 108/12/01	Visit of Robot and UAV Laboratories	
13	108/12/02 ~ 108/12/08	Robots and Culture Impact (I)	
14	108/12/09 ~ 108/12/15	Robots and Culture Impact (II)	
15	108/12/16 ~ 108/12/22	Should Machine Think?	
16	108/12/23 ~ 108/12/29	Current State of AI	
17	108/12/30 ~ 109/01/05	Future of the Robots	
18	109/01/06 ~ 109/01/12	Final Exam Week (Date:109/1/3-109/1/9)	

Requirement	
Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	In-class videos, handouts, and slides.
References	
Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	<p>◆ Attendance : 30.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 35.0 %</p> <p>◆ Final Exam : 35.0 %</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>