

Tamkang University Academic Year 114, 1st Semester Course Syllabus

Course Title	ARTIFICIAL INTELLIGENCE	Instructor	TRAN, HUU KHOA
Course Class	TLMXB4P DEPARTMENT OF INFORMATION MANAGEMENT, 4P	Details	♦ General Course ♦ Selective ♦ One Semester ♦ 3 Credits
Relevance to SDGs	SDG3 Good health and well-being for people SDG8 Decent work and economic growth SDG9 Industry, Innovation, and Infrastructure		
D e p a r t m e n t a l A i m o f E d u c a t i o n			
I . Refining information management skills. II. Enhancing information technology capabilities. III. Thinking independently with logic analysis. IV. Reinforcing team-working spirit. V . Valuing business and information ethics. VI. Cultivating global view.			
Subject Departmental core competences			
A. Problem analysis and critical thinking.(ratio:5.00) B. Functional business Areas and business practices.(ratio:5.00) C. Applications of information systems.(ratio:50.00) D. Computer programming.(ratio:20.00) E. Network system planning.(ratio:5.00) F. Database design and management.(ratio:5.00) G. Analysis, design and integration of information system.(ratio:5.00) H. Project management.(ratio:5.00)			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:15.00) 2. Information literacy. (ratio:30.00) 3. A vision for the future. (ratio:30.00) 4. Moral integrity. (ratio:5.00)			

5. Independent thinking. (ratio:5.00)				
6. A cheerful attitude and healthy lifestyle. (ratio:5.00)				
7. A spirit of teamwork and dedication. (ratio:5.00)				
8. A sense of aesthetic appreciation. (ratio:5.00)				
Course Introduction		This class aims to provide an introduction to efforts from a wide range of artificial intelligence researches, including Machine Learning, artificial neural networks and Computer Vision. This course will also touch the social impact of AI.		
<p>The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.</p> <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	Introduce a wide range of artificial intelligence researches to students			Cognitive
The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment				
No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDEFGH	12345678	Lecture, Discussion, Publication	Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written)
Course Schedule				
Week	Date	Course Contents		Note
1	114/09/15 ~ 114/09/21	Introduction to AI		

2	114/09/22 ~ 114/09/28	History of AI	
3	114/09/29 ~ 114/10/05	AI Games	
4	114/10/06 ~ 114/10/12	Unsupervised Learning	
5	114/10/13 ~ 114/10/19	Supervised Learning I	
6	114/10/20 ~ 114/10/26	Supervised Learning II	
7	114/10/27 ~ 114/11/02	Supervised Learning III	
8	114/11/03 ~ 114/11/09	Artificial Neuron Networks	
9	114/11/10 ~ 114/11/16	Midterm Exam Week	
10	114/11/17 ~ 114/11/23	Computer Vision I	
11	114/11/24 ~ 114/11/30	Computer Vision II	
12	114/12/01 ~ 114/12/07	Computer Vision III	
13	114/12/08 ~ 114/12/14	Hot topics I	
14	114/12/15 ~ 114/12/21	Hot topics II	
15	114/12/22 ~ 114/12/28	Project presentation	
16	114/12/29 ~ 115/01/04	Final Week of Diverse Assessments	
17	115/01/05 ~ 115/01/11	Final Week of Diverse Assessments/Flexible Teaching Week for Teachers	
18	115/01/12 ~ 115/01/18	Flexible Teaching Week for Teachers	
Key capabilities		self-directed learning Information Technology Problem solving Interdisciplinary	
Interdisciplinary		STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)	
Distinctive teaching		Industry-university collaboration courses Project implementation course	

Course Content	Computer programming or Computer language (students have hands-on experience in related projects) AI application
Requirement	
Textbooks and Teaching Materials	Self-made teaching materials:Handouts Using teaching materials from other writers:Handouts
References	
Grading Policy	<p>◆ Attendance : 10.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 5.0 %</p> <p>◆ Final Exam : 5.0 %</p> <p>◆ Other 〈Final Presentation〉 : 80.0 %</p>
Note	<p>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.</p> <p>※"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.</p>