

Tamkang University Academic Year 114, 1st Semester Course Syllabus

Course Title	ARTIFICIAL INTELLIGENT IN HEALTH CARE FOR OLDER ADULTS	Instructor	TENG YU KUANG
Course Class	TZIAM1A MASTER'S PROGRAM, DIVISION OF INTELLIGENT HEALTHCARE, GRADUATE INSTITUTE OF INTELLIGENT HEALTHCARE INDUSTRY, 1A	Details	◆ General Course ◆ Selective ◆ One Semester ◆ 3 Credits
Relevance to SDGs	SDG3 Good health and well-being for people SDG4 Quality education SDG9 Industry, Innovation, and Infrastructure SDG17 Partnerships for the goals		
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 . Development of problem solving capacity. II . Development of reserch and innovation capacity. III . Enhancement of cross-disciplinary capactiy. IV . Development of lifelong self learning capacity.			
Subject Departmental core competences			
A. Capacity of problem solving.(ratio:15.00) B. Capacity of senior health managemnt.(ratio:20.00) C. Capacity of Healthcare Industry Management.(ratio:15.00) D. Analytical capacity of health informatics.(ratio:5.00) E. Capacity of research and innovation.(ratio:15.00) F. Capacity of Scientific Paper Writing.(ratio:15.00) G. Capacity of lifelong self learning.(ratio:10.00) H. Creative Capacity.(ratio:5.00)			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:15.00) 2. Information literacy. (ratio:20.00) 3. A vision for the future. (ratio:15.00) 4. Moral integrity. (ratio:5.00) 5. Independent thinking. (ratio:15.00) 6. A cheerful attitude and healthy lifestyle. (ratio:15.00)			

7. A spirit of teamwork and dedication. (ratio:10.00)				
8. A sense of aesthetic appreciation. (ratio:5.00)				
Course Introduction	<p>Meanwhile, a severe caregiver shortage is straining health systems and families worldwide. Millions of aging adults now live alone, with limited daily interaction or support.</p> <p>In response, a new wave of innovators is using artificial intelligence — not to replace human care, but to enhance it. From audio-based monitoring and proactive voice companions to predictive AI and socially assistive robots, these tools are changing how we care for our seniors.</p>			
<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	AI in elder care is poised to revolutionize healthcare facilities by delivering personalized and timely medical assistance. From monitoring vital signs to administering medication reminders, AI-powered systems ensure seniors receive the attention they need promptly, significantly reducing the risk of medical emergencies. Emerging AI models can even identify medical conditions before symptoms appear.			Psychomotor
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	Report(including oral and written)
Course Schedule				
Week	Date	Course Contents		Note
1	114/09/15 ~ 114/09/21	(1) general impressions of AI-based health technologies;		

2	114/09/22 ~ 114/09/28	(1) general impressions of AI-based health technologies;	
3	114/09/29 ~ 114/10/05	previous experiences with AI-based health technologies;	
4	114/10/06 ~ 114/10/12	previous experiences with AI-based health technologies;	
5	114/10/13 ~ 114/10/19	perceptions and attitudes toward AI-based health technologies;	
6	114/10/20 ~ 114/10/26	perceptions and attitudes toward AI-based health technologies;	
7	114/10/27 ~ 114/11/02	anticipated difficulties in using AI-based health technologies and underlying reasons;	
8	114/11/03 ~ 114/11/09	middle report	
9	114/11/10 ~ 114/11/16	willingness, preferences, and motivations for accepting AI-based health technologies.	
10	114/11/17 ~ 114/11/23	willingness, preferences, and motivations for accepting AI-based health technologies.	
11	114/11/24 ~ 114/11/30	Individual report	
12	114/12/01 ~ 114/12/07	Individual report	
13	114/12/08 ~ 114/12/14	Individual report	
14	114/12/15 ~ 114/12/21	Individual report	
15	114/12/22 ~ 114/12/28	AI model for elderly people	
16	114/12/29 ~ 115/01/04	AI model for elderly people	
17	115/01/05 ~ 115/01/11	AI model for elderly people	
18	115/01/12 ~ 115/01/18	Final Report	
Key capabilities		Information Technology Humanistic Caring Problem solving	
Interdisciplinary		In addition to teaching content of the teacher's professional field, integrate other subjects or invite experts and scholars in other fields to share knowledge or teaching	

Distinctive teaching	<p>USR curriculum</p> <p>Special/Problem-Based(PBL) Courses</p>
Course Content	<p>Computer programming or Computer language (students have hands-on experience in related projects)</p> <p>Intellectual Property (learning intellectual property)</p> <p>Logical Thinking</p> <p>AI application</p> <p>Sustainability issue</p>
Requirement	AI operation concept
Textbooks and Teaching Materials	<p>Self-made teaching materials:Presentations, Videos</p> <p>Using teaching materials from other writers:Presentations, Videos</p>
References	
Grading Policy	<p>◆ Attendance : 40.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 30.0 %</p> <p>◆ Final Exam : 30.0 %</p> <p>◆ Other () : %</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>