

Tamkang University Academic Year 111, 1st Semester Course Syllabus

Course Title	ARTIFICIAL INTELLIGENCE	Instructor	TSENG, TZU-LAN
Course Class	TLGBM1A MASTER'S PROGRAM IN BUSINESS AND MANAGEMENT, DEPARTMENT OF MANAGEMENT SCIENCES (ENGLISH-TAUGHT PROGRAM), 1A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	SDG8 Decent work and economic growth SDG9 Industry, Innovation, and Infrastructure SDG17 Partnerships for the goals		
Departmental Aim of Education			
<ul style="list-style-type: none"> I. Develop a business and management perspective for students. II. Train the professionals in the integrated fields of business and management. III. Cultivate the talents with both theory and practices in business and management. 			
Subject Departmental core competences			
<ul style="list-style-type: none"> A. Provide the basic knowledge of both theory and practices.(ratio:30.00) B. Enhance the practical training for the current trends.(ratio:30.00) C. Cultivate the ethics in business and management.(ratio:15.00) D. Obtain the ability of analyzing industrial and business problems.(ratio:25.00) 			
Subject Schoolwide essential virtues			
<ul style="list-style-type: none"> 1. A global perspective. (ratio:25.00) 2. Information literacy. (ratio:25.00) 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:5.00) 7. A spirit of teamwork and dedication. (ratio:5.00) 8. A sense of aesthetic appreciation. (ratio:5.00) 			

Course Introduction	<p>This course is a design thinking and problem-oriented application of artificial intelligence technology. Students will learn valuable application topics found in life, and confirm their value through classroom discussion and sharing. This class will teach students the concepts of artificial intelligence technology such as data mining and natural language processing and their industrial practical applications, and analyze the latest issues and future trends of popular technologies such as natural language processing, image recognition, machine learning, and deep learning.</p>
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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	Help students understand the artificial intelligence concept and industrial practical application;	Cognitive
2	Proposing and/or conducting independent artificial intelligence research;	Affective
3	Help students understand the artificial intelligence practical application of a management issue;	Psychomotor

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABD	12345	Lecture, Discussion	Study Assignments, Discussion(including classroom and online), Activity Participation
2	CD	25678	Lecture, Discussion	Study Assignments, Discussion(including classroom and online), Report(including oral and written)

3	CD	13578	Lecture, Discussion	Study Assignments, Discussion(including classroom and online), Report(including oral and written)
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Course Schedule

Week	Date	Course Contents	Note
1	111/09/05 ~ 111/09/11	Moon Festival	
2	111/09/12 ~ 111/09/18	Introduction of Artificial Intelligence (AI) and Course Announcements	
3	111/09/19 ~ 111/09/25	AI Concept and its Applications	
4	111/09/26 ~ 111/10/02	AI Applications in Industry	
5	111/10/03 ~ 111/10/09	Data Mining – Clustering and its Exercises	
6	111/10/10 ~ 111/10/16	Data Mining – Classification and its Exercises	
7	111/10/17 ~ 111/10/23	Data Mining –Association rule and its Exercises	
8	111/10/24 ~ 111/10/30	Design Thinking and Co-work Methods	
9	111/10/31 ~ 111/11/06	Value Position Design with AI technologies, and Co-work Methods	
10	111/11/07 ~ 111/11/13	Midterm Exam Week	
11	111/11/14 ~ 111/11/20	Proposal Presentation of Final Projects	
12	111/11/21 ~ 111/11/27	AI technologies in Natural Language Processing	
13	111/11/28 ~ 111/12/04	AI technologies in Computer Vision	
14	111/12/05 ~ 111/12/11	Article Discussion and Analysis I	
15	111/12/12 ~ 111/12/18	Article Discussion and Analysis II	
16	111/12/19 ~ 111/12/25	Article Discussion and Analysis III	
17	111/12/26 ~ 112/01/01	Final Projects Report and Discussion	
18	112/01/02 ~ 112/01/08	Final-Exam Week (Article Discussion and Analysis IV)	

Requirement	

Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	No assigned textbooks
References	S. Russell and P. Norvig. (2021). Artificial Intelligence: A Modern Approach (The forth edition), Prentice Hall. G. Luger. (2015). Artificial Intelligence: Structures and Strategies for Complex Problem Solving, Addison-Wesley.
Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	<p>◆ Attendance : 10.0 % ◆ Mark of Usual : 30.0 % ◆ Midterm Exam : %</p> <p>◆ Final Exam : %</p> <p>◆ Other <Project Presentation> : 60.0 %</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>