Tamkang University Academic Year 114, 1st Semester Course Syllabus

Course Title	INTRODUCTION TO ARTIFICIAL INTELLIGENCE	Instructor	CHEN, DUEN-KAI
Course Class	TEIDB4A DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM), 4A	Details	◆ General Course ◆ Selective ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG4 Quality education SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Comprehend professional knowledge.

Ⅱ. Acquire mastery of Practical Skills.

Ⅲ. Establish creative achievement.

Subject Departmental core competences

A. Programming and application ability.(ratio:10.00)

B. Mathematical reasoning ability.(ratio:30.00)

C. Implementing computer systems ability.(ratio:20.00)

D. Computer networking application skills.(ratio:10.00)

E. Professional skills for information technology (IT) industry.(ratio:30.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:20.00)

3. A vision for the future. (ratio:10.00)

4. Moral integrity. (ratio:10.00)

5. Independent thinking. (ratio:10.00)

6. A cheerful attitude and healthy lifestyle. (ratio:10.00)

7. A spirit of teamwork and dedication. (ratio:20.00)

8. A sense of aesthetic appreciation. (ratio:10.00)

	Course Introduction	This class aims to provide an introduction to efforts from a wide range of artificial intelligence research, with a focus on fundamental machine learning concepts to be covered in this course. This course will also touch on the social impact of AI.

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	Introduce efforts from a wide range of artificial intelligence research 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	ABCDE	12345678	Lecture, Discussion, Practicum, Experience	Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written), Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	114/09/15 ~ 114/09/21	Overview of this course	
2	114/09/22 ~ 114/09/28	Introduction to AI applications.	
3	114/09/29 ~ 114/10/05	AI Uses and Limitations.	
4	114/10/06 ~ 114/10/12	Brief History of Artificial Intelligence	

5	114/10/13 ~ 114/10/19	Brief History of Artificial Intelligence	
6	114/10/20 ~ 114/10/26	Social impact of AI	
7	114/10/27 ~ 114/11/02	Social impact of AI	
8	114/11/03 ~ 114/11/09	Search Methodologies and Game Playing	
9	114/11/10 ~ 114/11/16	Midterm Exam/Midterm Assessment Week (teachers can adjust the week as needed)	
10	114/11/17 ~ 114/11/23	Introduction to Machine Learning	
11	114/11/24 ~ 114/11/30	Introduction to Machine Learning	
12	114/12/01 ~ 114/12/07	Introduction to Machine Learning	
13	114/12/08 ~ 114/12/14	Generative AI	
14	114/12/15 ~ 114/12/21	Generative AI	
15	114/12/22 ~ 114/12/28	Generative AI	
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 International mobility Information Technology
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	Project implementation course
Course Content	Logical Thinking AI application
Requirement	Details of grading policy and how course project works will be announce in the first class. Lecturer remain the rights to adjust grading policy. 成績計算方式及專題執行細節將於課堂上說明，且授課教師保留調整計算方式的彈性。

Textbooks and Teaching Materials	Self-made teaching materials:Presentations, Videos, Worksheets Using teaching materials from other writers:Presentations, Videos
References	Artificial Intelligence: a guide to intelligent systems 2nd Edition by Michael Negnevitsky, Addison Wesley
Grading Policy	◆ Attendance： % ◆ Mark of Usual：50.0 % ◆ Midterm Exam： 5.0 % ◆ Final Exam： 5.0 % ◆ Other〈course project〉：40.0 %
Note	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. ※"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.