Tamkang University Academic Year 112, 2nd Semester Course Syllabus

Course Title	CLOUD COMPUTING	Instructor	CHEN, SHIH-HSIN
Course Class	TEIBM1A MASTER'S PROGRAM, DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM),	Details	◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	1A SDG2 Zero hunger SDG4 Quality education SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Cultivate the ability to conduct independent research and problem solving.

Ⅱ. Strengthen creativity and research capacity.

Ⅲ. Build profound professional knowledge in computer science and information engineering.

Ⅳ. Engage in self-directed lifelong learning.

Subject Departmental core competences

A. Independent problem solving ability.(ratio:20.00)

B. Independent innovative thinking ability.(ratio:20.00)

C. Research paper writing and presentation ability.(ratio:20.00)

D. Research & development (R&D) ability in information engineering.(ratio:20.00)

E. Project execution and control ability.(ratio:10.00)

F. Lifelong self-directed learning ability.(ratio:10.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:20.00)

3. A vision for the future. (ratio:20.00)

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:10.00)

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

Course Introduction	This course mainly explains the three major categories of cloud, including IaaS, PaaS, and SaaS, supplemented by the new cloud architecture. We discover how to use cloud computing during the development process, and study how to accelerate the speed of research, which can be applied after graduation at work. This course will employ the products/services of Amazon Web Services and Google Cloud Platform.

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	Familiar with one fundamental framework of cloud computing.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDEF	12345678	Lecture, Practicum	Testing, Study Assignments, Report(including oral and written)

		Course Schedule	
Week	Date	Course Contents	Note
1	113/02/19 ~ 113/02/25	Course instructions	
2	113/02/26 ~ 113/03/03	IaaS: Infrastructure as a service (Amazon AWS EC2: Windows and Linux VMs)	
3	113/03/04 ~ 113/03/10	Infrastructure as a service (Google Computing Engine: Create VMs with a deep learning AMI and GPU should be in payment mode)	
4	113/03/11 ~ 113/03/17	TKU cloud, WSL2, and setup a web server.	

5	113/03/18~113/03/24	There is no class due to handicape students exam	
6	113/03/25~113/03/31	Personal website presentation	
7	113/04/01~113/04/07	Spring festival	
8	113/04/08~113/04/14	PaaS: Platform as a service (AWS BeansTalk)	
9	113/04/15~113/04/21	SaaS: Software as a Service (Dropbox, Github Copilot) Extra: VMware Horizon, AWS Cloud9	
10	113/04/22~113/04/28	Midterm report	
11	113/04/29~113/05/05	Container tutorial	
12	113/05/06~113/05/12	TWCC AI platform: Interactive container	
13	113/05/13~113/05/19	TWCC AI platform: Schedule container*	
14	113/05/20~113/05/26	AWS Machine Learning (Sagemaker)	
15	113/05/27~113/06/02	AWS RDS	
16	113/06/03~113/06/09	Implementation of the project	
17	113/06/10~113/06/16	Final report	
18	113/06/17~113/06/23	(Supplementary Teaching)	

Key capabilities	
Interdisciplinary	
Distinctive teaching	
Course Content	Computer programming or Computer language (students have hands-on experience in related projects) AI application
Requirement	程式設計能力如Java、Python

Textbooks and Teaching Materials	Self-made teaching materials:Presentations, Handouts
References	
Grading Policy	◆ Attendance： 10.0 ％　◆ Mark of Usual：20.0 ％　◆ Midterm Exam： 35.0 ％ ◆ Final Exam： 35.0 ％ ◆ Other 〈　〉：　　％
Note	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 . ※ **Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**