Tamkang University Academic Year 113, 2nd Semester Course Syllabus

Course Title	CLOUD SECURITY PRACTICES AND STRATEGIES	Instructor	SHENGZHI HUANG
Course Class	TEIBM1A MASTER'S PROGRAM, DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM),	Details	◆ General Course ◆ Selective ◆ One Semester ◆ 2 Credits
Relevance to SDGs	1A 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:10.00)

4. Moral integrity. (ratio:20.00)

5. Independent thinking. (ratio:10.00)

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

7. A spirit of teamwork and dedication. (ratio:15.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction	This course is designed to help students gain a foundational knowledge of cybersecurity principles and services for cloud computing through a guided hands-on approach. This course includes demonstrations, instructional guides, and real-life scenarios.

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	Upon completion of this course, students will be able to do the following: - Identify security benefits and responsibilities of using the Amazon Web Services (AWS) Cloud. - Use the identity and access management features of AWS. - Describe how to secure network access to AWS resources. - Explain the available methods for encrypting data at rest and data in transit. - Determine which AWS services can be used for monitoring and incident response.	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	114/02/17 ~ 114/02/23	Lecture Introduce	
2	114/02/24 ~ 114/03/02	Module 1: Welcome	
3	114/03/03 ~ 114/03/09	Module 2: Introduction to Security on AWS	
4	114/03/10 ~ 114/03/16	Module 3: Securing Access to Cloud Resources	
5	114/03/17 ~ 114/03/23	Module 3: Securing Access to Cloud Resources	
6	114/03/24 ~ 114/03/30	Module 4: Securing Your Infrastructure	
7	114/03/31 ~ 114/04/06	Teaching and Administrative Observation Day	
8	114/04/07 ~ 114/04/13	Module 4: Securing Your Infrastructure	
9	114/04/14 ~ 114/04/20	Midterm report	
10	114/04/21 ~ 114/04/27	Module 5: Protecting Data in Your Application	
11	114/04/28 ~ 114/05/04	Module 5: Protecting Data in Your Application	
12	114/05/05 ~ 114/05/11	Module 6: Logging and Monitoring	
13	114/05/12 ~ 114/05/18	Module 6: Logging and Monitoring	
14	114/05/19 ~ 114/05/25	Module 7: Responding to and Managing an Incident	
15	114/05/26 ~ 114/06/01	Module 7: Responding to and Managing an Incident	
16	114/06/02 ~ 114/06/08	Final report	
17	114/06/09 ~ 114/06/15	Final report	
18	114/06/16 ~ 114/06/22	Final report	
Key capabilities	self-directed learning		
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)		
Distinctive teaching	Project implementation course		

Course Content	Computer programming or Computer language (students have hands-on experience in related projects) Logical Thinking
Requirement	
Textbooks and Teaching Materials	Using teaching materials from other writers:Handouts Name of teaching materials: AWS Academy Cloud Security Foundations
References	
Grading Policy	◆ Attendance： 20.0 % ◆ Mark of Usual： % ◆ Midterm Exam： % ◆ Final Exam： % ◆ Other〈mid / final report〉：80.0 %
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.**