TEMASEK POLYTECHNIC
SCHOOL OF INFORMATICS & IT
DIPLOMA IN APPLIED ARTIFICIAL INTELLIGENCE
AY2022/2023 APRIL SEMESTER (LEVEL 2)
TEACHING PLAN FOR CLOUD TECHNOLOGIES (CAI2C04)

Wk	Commencing	Practical (60 hrs)		ILO	Remarks
		Face-to-face (4hrs)	E-learning / independent learning		
1 (1)	18 Apr 22	Introduction to Cloud (3hrs) Consultation (1hr - online)	Cloud Computing Fundamentals (1 hr)	1	
2 (2)	25 Apr 22	AWS Amazon Elastic Compute Cloud (3hrs) Consultation (1hr - online)	Cloud Services Orchestration (1 hr)	1, 2	1 May (Sun):Labor Day Project Specs Release
3 (3)	2 May 22	Introduction to Linux I (3hrs)	Cloud Services Orchestration (1 hr)	2	2 May (Mon):public holiday 3 May (Tue):Hari Raya Puasa 7 May (Sat): Graduation Ceremonies for IIT (TBC)
4 (4)	9 May 22	**FLEX WEEK**			15 May (Sun):Vesak Day 11 May (Wed): Graduation Ceremonies for IIT (TBC)
5 (5)	16 May 22	Introduction to Linux II (3hrs)	Cloud Services Orchestration (1 hr)	2	16 May (Mon):public holiday CCN Day 20 May (Fri, pm) (TBC)
6 (6)	23 May 22	AWS Storage (3hrs) Consultation (1hr - online)	Cloud Services Orchestration (1 hr)	2	
7 (7)	30 May 22	AWS Relational Database Service (3hrs) Consultation (1hr - online)	Cloud Services Orchestration (1 hr)	2	

Wk	Commencing	Practical (60 hrs)		ILO	Remarks
		Face-to-face (4hrs)	E-learning / independent learning		
8 (8)	6 Jun 22	**TERM TEST**			
9 (9)	13 Jun 22	**TERM BREAK**			
10 (10)	20 Jun 22	**TERM BREAK**			
11 (11)	27 Jun 22	AWS DynamoDB (3hrs) Consultation (1hr - online)	Cloud Services Orchestration (1 hr)	2	1 July (Fri): Mid-Semester CCM (TBC) Proposal (20%)
12 (12)	4 Jul 22	AWS Lambda (3hrs) Consultation (1hr - online)	Cloud Services Orchestration (1 hr)	2	10 July (Sun):Hari Raya Haji
13 (13)	11 Jul 22	Project Consultation (3hrs) Consultation (1hr - online)	Cloud Services Orchestration (2 hrs)	2, 3	11 July (Mon):public holiday
14 (14)	18 Jul 22	**FLEX WEEK**			
15 (15)	25 Jul 22	Project Consultation (3hrs) Consultation (1hr - online)	Cloud Deployment (2 hrs)	2, 3	
16 (16)	1 Aug 22	Project Consultation (3hrs) Consultation (1hr - online)	Cloud Deployment (2 hrs)	2, 3	
17 (17)	8 Aug 22	Project Consultation (3 hrs)			9 Aug (Tue):National Day Deliverables (60%)
18 (18)	15 Aug 22	**STUDY WEEK**			Presentation (20%)

Wk	Commencing	Practical (60 hrs)		ILO	Remarks
		Face-to-face (4hrs)	E-learning / independent learning		
19 (19)	22 Aug 22	SEMESTRAL EXAMINATION (22 Aug – 2 Sept 2022)			
		VACATION (3 Sept – 16 Oct 2022)			
Remark- For the Wk (Week) column, the first number in a row indicated the "physical" week number based on FAST workflow. The second number in bracket is the"logical" week number used within a semester. # - No re-scheduling of classes unless advised by the respective Course Chair					

Teaching Team

Names	Contact No.	Email
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Total Hours based on Syllabus / Breakdown of Hours

Hours Based on Syllabus		Breakdown of Hours	
Class/Activity	Hours	Face-to-Face	E-Learning/Independent Learning
Practical	59 hours	45 hours	14 hours
		Breakdown of Assessment Hours	
Assessment(s)	1 hours	Assessment 1	1 hours
Total	60 hours		

Assessment

Type of Assessment	Raw Marks	ILOs covered	Individual%	Group%
Continuous Assessment (100%)				

Project:				
- Proposal (20%)	20 marks	1, 3	20%	-
- Deliverables				-
- Application (40%)	40 marks	1, 2, 3	40%	
- Report (20%)	20 marks	1, 2, 3	20%	
- Presentation and Demonstration (20%)	20 marks	1, 2, 3	20%	-
Total			100%	

Proposal (20%)

Students will work individually and submit a project proposal for a problem scenario that requires them to demonstrate understanding of how to design, assemble, evaluate and deploy an application or web-service solution onto a cloud platform.

Deliverables (60%)

The deliverables component will be used to assess the quality and functionalities of the application or web-service solution produced by the student. Students will be assessed on the knowledge and problem-solving skills in meeting the project specifications. This component also assesses the ability of the students in orchestrating selected cloud services using a cloud programming model such as Lambda from AWS. Lastly, students will also be required to write a report to describe the decision and rationales in using the selected services in the application or web-service solution.

Presentation (20%)

The demonstration will be used to assess the student's ability to describe, explain and/or demonstrate the project deliverables.

Penalties for late submissions

late and < 1 day: 10% deduction from absolute mark given for the assignment e.g 75 marks (100 marks max) becomes 65 marks (deduct 10% of 100 marks)

late >=1 and <2 days: 20% deduction from absolute mark

late >=2 days: 0 marks awarded

References

Erl, T., Puttini, R., & Mahmood, Z. (2013). *Cloud computing: Concepts, technology & architecture*. Hoboken, Prentice Hall.

Patterson, S. (2019). *Learn AWS serverless computing: A beginner's guide to using AWS Lambda, Amazon API gateway, and services from Amazon Web Services*. Packt Publishing.

Rafaels, R. (2015). *Cloud computing: From beginning to end.* CreateSpace Independent Publishing Platform.

Follow-up in the event of emergencies leading to closure of the Polytechnic

In the event of the temporary closure of the Polytechnic due to unforeseen circumstances such as severe haze, a pandemic, or other emergencies, students should log in to LMS for instructions on the completion of independent learning activities until the resumption of on-site classes at the Polytechnic. IIT has in place a comprehensive set of eLearning materials to replace face-to-face lessons and these would be made available to students via LMS when classes cannot be conducted on campus.

Prepared by	:	Ms. Cheng Shuyun	(Subject Leader)
Vetted by	:	Mr. Andrew Chong	(Manager)
Approved by	:	Mr. Tan Sio Poh	(Course Chair)