COURSE INFORMATION

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School/Faculty:	**Faculty of Computing, UTM**		
Program name:	**Bachelor of Computer Science**		
Course code:	**SECP1513**	**Session/Semester**	**20232024/1**
Course name:	**Technology & Information System**	**Pre/co requisite (course name and code, if applicable):**	
Credit hours:	**3**		

Course synopsis	As a primer subject, this course will introduce students to information systems and technology (IS/IT) and its uses at home and work. Various aspects of IS/IT encompassing hardware, software, network and communications will be introduced. Students will be equipped with basic skills in handling PC installation and productivity tools via practical work in the labs, which shall comprise a major part of the study. This class also conducts industry visits and talks as a part of work-based learning. Both industry visits and talks will expose students to a real working environment, get knowledge from the industry and increase engagement between university and industry. The student also needs to briefly explore the requirements and job specifications for a career in IT.
Course coordinator (if applicable)	Muhammad Iqbal Tariq Bin Idris

Course lecturer(s)	**Name**	**Office**	**Contact no.**	**E-mail**
	Dr. Azurah binti Abu Samah (01, 05)			azurah@utm.my
	Dr. Aryati binti Bakri (02)			aryati@utm.my
	Ts. Dr. Muhammad Iqbal Tariq bin Idris (03, 04)			miqbaltariq@utm.my
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	Dr. Halinawati Binti Hirol (MJIIT)			halinawati@utm.my

Mapping of the Course Learning Outcomes (CLO) to the Programme Learning Outcomes (PLO), Teaching & Learning (T&L) methods and Assessment methods:

No.	CLO*	PLO **(MQF Cluster Code)	***Taxonomies and ****generic skills	T&L methods	*****Assessment methods
CLO1	To explain the computer hardware and the use of computer software	PLO1	C1	Lecture, active learning, Lab work, Industry Talk, Industry Visit	Assigment, Test, Lab, Industry Talk, Industry Visit
CLO2	To differentiate different types of information systems	PLO6	C2	Lecture, active learning, Industry Talk	Assigment, Test
CLO3	To identify the requirements and job specification in brief for a career in IT.	PLO9	C5	Lecture, active learning, Lab work, Industry Talk, Industry Visit	Assigment, Industry Talk

This is the basic mapping required for the CI. Any added information is allowed (extra columns for weight or other elements) provided this is made consistent for all CI at program/school/faculty level.
*Up to 5 CLO
Refer ***Taxonomies of Learning and ****UTM's Graduate Attributes for UG and Generic Skills for PG, where applicable for measurement of outcomes achievement
*****T – Test; Q – Quiz; HW – Homework; Asg – Assignment; PR – Project; Pr – Presentation; F – Final Exam etc.

PL

****MQF Cluster Code**

C1 = Knowledge & Understanding, **C2** = Cognitive Skills, **C3A** = Interpersonal Skills, **C3B** = Interpersonal Skills, **C3C**= Communication Skills, **C3D** = Digital Skills, **C3E** = Numercy Skills, **C3F** = Leadership, Autonomy & Responsibility, **C4A** = Personal Skills, **C4B** = Enterpreneurial Skills, **C5** = Ethics & Professionalism

Details on Innovative T&L practices:

No.	Type	Implementation

1	Active learning	Conducted through in-class activities, for example Two-Minute Paper, Think-Pair Share, Note Checking, Reflection and JIGSAW.
2	Project-based learning	Each student is required to complete his/her own e-portfolio. The purpose of this project is to enable students to collect all evidences of his/her learning journey over time during study in UTM. This would be a great benefit to the students when they applying jobs after graduating from the university and as a part of lifelong learning.
3	Industry visit	Industry visit is an approach of work-based learning and be a part of NALI (New Academic Innovative Learning). From industry visit, students can clearly understand the role of ICT in various types of organisations e.g. ICT as core business of organizations or ICT as a business enabler. In addition, the students can identify the requirements and job specifications for a career in ICT.
4	Industry talk	Industry visit is an approach of work-based learning and be a part of NALI (New Academic Innovative Learning). From industry talk, students can clearly understand the role of ICT in various types of organisations and current trend in industry such as IR4.0, block chain. In addition, the students can identify the requirements and job specifications for a career in ICT.
5	Lab work	Students are required to assemble and reassemble computer hardware and this lab work will be done in small groups.

Transferable skills (generic skills learning in course of study which can be useful and utilised in other settings) :
Presentation and communication

Student learning time (SLT) / Effective Learning Time (ELT) details:

Week/ Meeting	**Course Content Outline and Subtopics**	**CLO***	**Learning and Teaching Activities**									**TOTAL ELT**
			Face-to-Face (F2F)								**Non F2F Independent Learning**	
			Physical				**Online (Synchronous)**				**Online (Asynchronous)**	**Others**
			L	**T**	**P**	**O**	**L**	**T**	**P**	**O**		
Week 1 08.10.23	Overview of: a. Course Information b. E-portfolio (Github) c. Design Thinking Project	CLO1	3									1	4

Week 2 15.10.23	Overview of: a. Chapter 1: Emerging Technology in ICT b. Chapter 2: Hardware	CLO1	3									1	4
Week 3 22.10.23	Overview of: a. Chapter 3: Software b. Chapter 4: Information Systems & Methodology ** PC Assemble (Group 1 - 30pax), Quiz *(Subject to change)*	CLO 1 & CLO3	3									1	4
Week 4 29.10.23	Overview of: a. Chapter 5: Databases and Data Analytics b. Chapter 6: Networks and Communications PC Assemble (Group 2 - 30pax), Quiz *(Subject to change)*	CLO 1 & CLO3	3									1	4
Week 5 05.11.23	Overview of: a. Chapter 7: Privacy, Security, and Ethics b. Chapter 8: Cloud Computing	CLO1	3									1	4
Week 6 12.11.23	Industry Talk 1, Assignment 1 Propose Title: Overview of Jobs in ICT Propose Industry: TBC Propose Date / Time: 14.11.2023 / 2.30-4.30PM *Note - Public Holiday: Deepavali (12.11.2023)*	CLO1	3									1	4
Week 7 19.11.23	Industry Visit 1, Assignment 2 Propose Industry: UTMDigital Propose Date: TBC Propose Time: TBC	CLO3	3								2	1	6
Week 8 26.11.23	**MID TERM BREAK**												
Week 9 03.12.23	Design Thinking Pitch Part I a. Group 1 b. Group 2 c. Group 3	CLO1	3									1	4
Week 10 10.12.23	Design Thinking Pitch Part II a. Group 4 b. Group 5 c. Group 6	CLO1	3									1	4
Week 11 17.12.23	Design Thinking Pitch Part III a. Group 7 b. Group 8	CLO1	3									1	4
Week 12 24.12.23	Industry Talk 2, Assignment 3 Propose Title: The Future of Software Development Propose Industry: TBC Propose Date / Time: 26.12.2023 / 2.30-4.30PM *Note - Public Holiday: Christmas Day (25.12.2023)*	CLO1	3								2	1	6
Week 13 31.12.23	Industry Visit 2, Assignment 4	CLO3	3									1	4

Week 14 07.1.24	Test Preparation and Revision	CLO1	3									1	4
Week 15 14.1.24	Test Propose Venue: MPK1-10 Propose Date: 16/01/2024 Propose Time: 2.30-4.30 PM	CLO1 & CLO2	3									5	8
Week 16 21.1.24	Eportfolio Submission	CLO1 & CLO2	3									5	8
											SUB-TOTAL ELT :		**64**

Continous Assessment		**%**	**Face-to-Face (F2F)**		**NF2F Independent Learning for Assessment**		**TOTAL SLT**
			Physical	**Online (Synchronous)**	**Online (Asynchronous)**	**Others**	
1	Assignment 1 (Format: Poster)	7				7	7
2	Assignment 2 (Format: Video)	10				10	10
3	Assignment 3 (Format: Report)	7				7	7
4	Assignment 4 (Format: Technical Paper IEEE Format)	10				10	10
6	E-portfolio (Github)	20			12	8	20
					SUB-TOTAL ELT :		**54**

Summative Assessment		**%**	**Face-to-Face (F2F)**		**NF2F Independent Learning for Assessment**		**TOTAL SLT**
			Physical	**Online (Synchronous)**	**Online (Asynchronous)**	**Others**	
1	PC Assemble (Lab)	6	10				10
2	Design Thinking (Low Fidelity Prototype)	20			5	8	13
3	Mid Term(Online Test) Ch1-Ch7	20			1	8	9
					SUB-TOTAL ELT :		**32**

		ELT for Assessment:	**86**
		GRAND TOTAL ELT:	**150**
A	% ELT for F2F Physical Component	34.67	
B	% ELT for Online & Independent Learning Component :	65.33	
C	%ELT for Online Component:	14.67	
D	% ELT for All Practical Component:	0.00	
D1	% ELT for F2F Physical Practical Component:	0.00	
D2	% ELT for F2F Online Practical Component:	0.00	
Please tick (/) if this course is Industrial Training/ Clinical Placement/ Practicum using 50% of Effective Learning Time (ELT)			

Identify special requirement or resources to deliver the course (e.g.,software,nursery, computer lab, simulation room etc)
Computer Lab(PC Assemble)

References (include required and further readings, and should be the most current)
Vermaat, M. E., Sebok, S. L., Freund, S. M., Campbell, J. T., & Frydenberg, M. (2017). Discovering computers© 2018: Digital technology, data, and devices. Cengage Learning. USA

Other additional information (if applicable)
Academic honesty and plagiarism: *(Below is just a sample)*
Assignments are individual tasks and NOT group activities (UNLESS EXPLICITLY INDICATED AS GROUP ACTIVITIES) Copying of work (texts, simulation results etc.) from other students/groups or from other sources is not allowed. Brief quotations are allowed and then only if indicated as such. Existing texts should be reformulated with your own words used to explain what you have read. It is not acceptable to retype existing texts and just acknowledge the source as a reference. Be warned: students who submit copied work will obtain a mark of zero for the assignment and disciplinary steps may be taken by the Faculty. It is also unacceptable to do somebody else's work, to lend your work to them or to make your work available to them to copy.

Other additional information (if applicable)

Disclaimer:

ELT = (Theory + Industrial Guidance + Assessment) x 50%

Total of credit for LI/Practical = ELT/40 Notional Hours

Note: For ODL Programme : Courses with mandatory practical requirement imposed by programme standards or any related standards can be exempted from complying to the minimum 80% ODL delivery rule in the SLT.

Prepared by:	**Certified by:**
Name Muhammad Iqbal Tariq Bin Idris	**Name:**
Signature:	**Signature:**
Date: 26/9/2023	**Date:**