COURSE INFORMATION

1 .	**Name of Course**	Computer Systems & Applications
2 .	**Course Code**	DCS5018
3 .	**Type of Course** (e.g. : Core, major, elective etc.)	Core for *Diploma in Information Technology*
4 .	**Synopsis**	This course educates students the basics and use of computers in their everyday llife. The course includes understanding the operations of a computer, application software, system software, computer networks, programming and databases. Students will also acquire practical skills in office productivity software.
5 .	**Version** (State the date of theSenate's approval - previous and the current approval date)	Current: June 2017 Previous: ADC 0915 Senate 181 Nov 2015 New version : ADC Oct 2017 Special Senate Nov 2017
6 .	**Name(s) of Academic Staff**	Liew Yee Ping, Mardhiyah Ahmad, Norihan Hamzah, Nurul Aqma Salleh, **Tan Su-Mae**
7 .	**Semester and Year Offered**	Semester 1 Year 1
8 .	**Credit Value**	4
9 .	**Pre-Requisite**	None
10 .	**Objective of the course in the programme:**	
	To provide students with knowledge on technological advances in the digital world, not to mention equip students with skill in using office automation software and third-generation programming language.	
11 .	**Justification for including the course in the programme:**	
	This subject covers the fundamentals of computers in everyday life, such as hardware, software, networking and digital communications at the basic level. Students are also introduced to the fundamentals of programming and databases. Students are expected to apply their computer skills in word processing, presentation and spreadsheet in other subjects and future workplace.	

12 .	**Course Learning Outcomes (CLO)**	**Domain**	**Level**
	CLO1: Explain computers capabilities and limitations and how to use them safely and efficiently in daily activities.	Cognitive	2
	CLO2: Apply basic programming knowledge and computing skills using automation software to enhance work efficiency. Apply basic programming knowledge and computing skills using office automation software to enhance work efficiency.	Cognitive	3
	CLO3: Discuss information technology knowledge or ideas as a team, and share it with other peers.	Affective	3

13 . **Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment:**

Course Learning Outcomes (CLO) (Must tally with CLOs in item 12)	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	Teaching Methods	Assessment Method
CLO1	✓								Lecture/Tutorial	Quiz, Midterm Test, Final Exam
CLO2					✓				Lab	Lab Test
CLO3			✓						Group ~~Assignment~~ Discussion	Assignment/Presentation
Total	**1**				**1**	**1**			*Indicate the relevancy between the CLO and PLO by ticking "✓" the appropriate relevant box (This description must be read together with standards 2.1.2, 2.2.1, and 2.2.2 in Area 2 – pages 16 & 18 of COPPA 2.0)*	

14 .	**Transferable Skills:**
	Communication, leadership and team skills

15 . **Distribution of Student Learning Time (SLT)**

Course Content Outline	**CLO	Teaching and Learning Activities Guided Learning (F2F)*				Guided Learning (NF2F)*	Independent Learning (NF2F)*	Total SLT
		*L	*T	*P	*O			
1 Introduction to Computers Basics of computer which include the four basic operations that a computer performs; The concept of bits and bytes; Various types of computers, input devices, and output devices; The understanding of CPU and RAM as well as types of storage technologies; Ergonomics in computing context.	CLO1	3	1			1	3	8

No	Topic	CLO							Total
2	**Using the Internet** The origin of the Internet and how the Internet works; Various Internet services, including forms of Internet communication; The usage of Web browser to access the Web and the usage of search engines to search the Web.	CLO1	2					2	4
3	**Application Software** Productivity software for home and office applications; Business software for home and office as well as media software for home users; The concept of buying software and software versions; The differences between shareware and freeware; The methods on how to install and uninstall as well as start application.	CLO1	2					2	4
4	**System Software** Types of operating systems as well as the functions of the operating system; The four important steps in boot process; The usage of the Windows desktop features; Various utility programs in the computer system.	CLO1	3	1			2	2	8
5	**System Unit** CPU subsystem which consists of components of CPU and components on the motherboard; The memory subsystem, storage subsystem, video subsystem and audio subsystem; The assessment of system reliability.	CLO1	3	1			2	2	8
6	**Networking** The advantages and disadvantages of computer networking; The various Internet connection options; How to configure home network equipment; How to connect devices to networks; How to configure software for home network.	CLO1 CLO3	3	1				4	8
7	**Digital Lifestyle: Managing Digital Data and Devices** The digital lifestyle and the advantages of digital format in our daily lives; How cellular works in telecommunication systems; Cellphone or Smartphone components; The file formats for image, digital music and video.	CLO1 CLO3	2					2	4
8	**Computer Security** Definition of cybercrime and cybercriminal; The types of cybercrime and the types of computer threats; This topic also introduces ways to protect digital and computing assets and ways to manage online annoyances; Ways to protect personal information and backup data.	CLO1 CLO3	3	1			2	2	8
9	**Software Programming** The steps in the system development life cycle, the steps in the program development life cycle, the generations of programming languages, A compiler and an interpreter, the various programming languages, how to select the right programming language.	CLO1	2					2	4
10	**Databases & Information Systems** Discuss the advantages of using databases; Define the main components of a database; Explain the major types of databases; Know the main operations of a database management system; Identify the types of relationships; Describe the categories of information systems; Explain data warehouses, data marts and data mining.	CLO1	2					2	4
1	**Word Processing software** Create, edit and modify text-based documents such as letters, resume and reports.	CLO2			6			6	12
2	**Presentation software** Create good multimedia presentation slides using layouts, design template, animations and transitions.	CLO2			4			4	8
3	**Spreadsheet software** Create simple reports and charts and apply formulas and functions.	CLO2			6			6	12

4 Programming software	CLO2		4			4	8
Learn to write and execute simple programming code that allow them to input variables and view output of the programs.							

	Total SLT	100

SUMMATIVE ASSESSMENT

1. Continuous Assessment	Percentage %	Total SLT
Quiz	5%	4
Lab Test	20%	14
Assignment	10%	8
Midterm Test	15%	12
Total SLT for Continuous Assessment		**38**

2. Final Assessment	Percentage %	Total SLT F2F	Total SLT ILT
Final Exam	50%	2	20
Total SLT for Final Assessment (F2F + NF2F)		**22**	

Grand Total	**100%**	**160**

**Indicate the CLO based on the CLO's numbering in Item 12.
*L= Lecture, *T= Tutorial, *P= Practical, *O= Others, F2F*= Face to Face, NF2F*= Non Face to Face

16 .	**Identify Special Requirement to Deliver the Course (e.g., software, nursery, computer lab, simulation room):** Computer lab, Microsoft Office, Dev C++
17 .	**Main References:** Evans, A., Martin, K., & Poatsy, M. A. (2015). *Technology in Action Complete.* Prentice Hall. (12th Edition)
18 .	**Additional References:** LaBerta, C. (2011). *Computers Are Your Future Complete* . Prentice Hall. (12th Edition) Beekman, G., & Beekman, B. (2011). *Digital Planet: Tomorrow's Technology and You, Complete.* Prentice Hall. (10th Edition)