

**COURSE INFORMATION**

1 .	<b>Name of Course</b>	Computer Systems & Applications							
2 .	<b>Course Code</b>	DCS5018							
3 .	<b>Type of Course</b> (e.g. : Core, major, elective etc.)	Core for <i>Diploma in Information Technology</i>							
4 .	<b>Synopsis</b>	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 .	<b>Version</b> (State the date of theSenate’s approval - previous and the current approval date)	Current: ADC 10 2017 Previous: ADC 06 2017							
6 .	<b>Name(s) of Academic Staff</b>	Liew Yee Ping, Mardhiyah Ahmad, Norihan Hamzah, Nurul Aqma Salleh, <b>Tan Su-Mae</b>							
7 .	<b>Semester and Year Offered</b>	Semester 1 Year 1							
8 .	<b>Credit Value</b>	4							
9 .	<b>Pre-Requisite</b>	None							
10 .	<b>Objective of the course in the programme:</b> 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 .	<b>Justification for including the course in the programme:</b> 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.								
14 .	<b>Transferable Skills:</b> Communication, leadership and team skills								
15 .	<b>Distribution of Student Learning Time (SLT)</b>								
	<b>Course Content Outline</b>	<b>**CLO</b>	<b>Teaching and Learning Activities</b>				<b>Guided Learning (NF2F)*</b>	<b>Independent Learning (NF2F)*</b>	<b>Total SLT</b>
			<b>Guided Learning (F2F)*</b>						
			<b>*L</b>	<b>*T</b>	<b>*P</b>	<b>*O</b>			
	<b>1 Introduction to Computers</b> 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.	<b>CLO1</b>	3	1			1	3	8
	<b>2 Using the Internet</b> 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.	<b>CLO1</b>	2					2	4

<b>3 Application Software</b> 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
<b>4 System Software</b> 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
<b>5 System Unit</b> 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
<b>6 Networking</b> 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
<b>7 Digital Lifestyle: Managing Digital Data and Devices</b> 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
<b>8 Computer Security</b> 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
<b>9 Software Programming</b> 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
<b>10 Databases &amp; Information Systems</b> 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
<b>1 Word Processing software</b> Create, edit and modify text-based documents such as letters, resume and reports.	CLO2			6			6	12

2	<b>Presentation software</b> Create good multimedia presentation slides using layouts, design template, animations and transitions.	CLO2			4			4	8
3	<b>Spreadsheet software</b> Create simple reports and charts and apply formulas and functions.	CLO2			6			6	12
4	<b>Programming software</b> Learn to write and execute simple programming code that allow them to input variables and view output of the programs.	CLO2			4			4	8
								<b>Total SLT</b>	<b>100</b>
<b>SUMMATIVE ASSESSMENT</b>									
<b>1. Continuous Assessment</b>			<b>Percentage %</b>				<b>Total SLT</b>		
Quiz			5%				4		
Lab Test			20%				14		
Assignment			10%				8		
Midterm Test			15%				12		
<b>Total SLT for Continuous Assessment</b>							<b>38</b>		
<b>2. Final Assessment</b>			<b>Percentage %</b>				<b>Total SLT</b>		
Final Exam			50%				<b>F2F</b>		<b>ILT</b>
							2		20
<b>Total SLT for Final Assessment (F2F + NF2F)</b>							<b>22</b>		
<b>Grand Total</b>			<b>100%</b>				<b>160</b>		
<b>**Indicate the CLO based on the CLO's numbering in Item 12.</b> <b>*L= Lecture, *T= Tutorial, *P= Practical, *O= Others, F2F*= Face to Face, NF2F*= Non Face to Face</b>									
16 .	<b>Identify Special Requirement to Deliver the Course (e.g., software, nursery, computer lab, simulation room):</b> Computer lab, Microsoft Office, Dev C++								
17 .	<b>Main References:</b> Evans, A., Martin, K., & Poatsy, M. A. (2015). <i>Technology in Action Complete</i> . Prentice Hall. (12th Edition)								
18 .	<b>Additional References:</b> LaBerta, C. (2011). <i>Computers Are Your Future Complete</i> . Prentice Hall. (12th Edition) Beekman, G., & Beekman, B. (2011). <i>Digital Planet: Tomorrow's Technology and You, Complete</i> . Prentice Hall. (10th Edition)								