UNIVERSITI TEKNOLOGI MARA
CSC434: COMPUTER ESSENTIALS AND APPLICATIONS

Course Name (English)	COMPUTER ESSENTIALS AND APPLICATIONS APPROVED
Course Code	CSC434

MQF Credit	3

Course Description	This course exposes the students on the essentials of computing and deals with the general computer literacy. Understanding the computer is becoming more essential to be productive and successful in today's world. The course exposes fundamental concepts in a manner that emphasizes their importance from the user's point of view. The computer is transforming the way we learn, communicate and do business. Besides providing an overview of computers – what they are doing and what they can do, this course also covers the aspects including computer security and ethics, modern trends and issues. The students are expected to have hands-on experience of using popular application packages.

Transferable Skills	The students are expected to have general computer literacy and hands-on experience of using popular application packages.

Teaching Methodologies	Lectures, Lab Work

CLO	CLO1 Comprehend the concept, components and processing of computer, communication, security, and ethics in the industry.
	CLO2 Follow the use of current business software for various application in the industry.
	CLO3 Justify the current issues in computer, communication technologies and security in the industry.

Pre-Requisite Courses	No course recommendations

Topics
1. Introduction 1.1) Introduction to Computer 1.2) Component of a computer 1.3) Types of computers 1.4) Computer in society 1.5) Information systems 1.6) Your future, careers and opportunities
2. The system unit 2.1) Electronic data and instructions 2.2) System board 2.3) Microprocessor 2.4) Memory 2.5) System clock 2.6) Expansion slot and cards 2.7) Bus lines 2.8) Ports and cables 2.9) Power supply
3. Input and Output 3.1) Input devices: keyboard, pointing devices, scanning devices, image capturing devices, audio-input devices 3.2) Biometrics authenticates devices 3.3) Output devices: monitors, printers, audio-output devices 3.4) Combination of input and output devices

4. Secondary storage 4.1) Floppy disks 4.2) Hard disks 4.3) Optical disks 4.4) Other types of secondary storage
5. System software 5.1) Types of system software: operating system (OS), utilities, device drivers, and language translators 5.2) Functions, features and categories of OS 5.3) Most popular OS used today 5.4) Types of utilities
6. Application software 6.1) Types of basic application software: word processor, spreadsheet, DBMS, graphic presentation and browser 6.2) Integrated packages and suite packages 6.3) Sharing data between application 6.4) Types of specialized application software: multimedia, web authoring, graphic programs, artificial intelligence and virtual reality
7. Internet and the Web 7.1) Internet services: communicating (e-mail, teleconferencing, discussion group); shopping (e-payment, e-commerce); entertainment (games, movie previews); researching 7.2) Internet access: ISP and online services 7.3) Web utilities
8. Communications and Networking 8.1) Communication systems: Sending and receiving devices, communication channels, connection devices and data transmission specifications. 8.2) Network terms 8.3) Types of network: LAN, MAN, WAN and WLAN 8.4) Network architecture: topology and strategy 8.5) Organizational Internet: Intranet, Extranet and Firewall
9. Database 9.1) Database, data, and information. 9.2) The hierarchy of data: characters, fields, records, files 9.3) Maintaining data: adding, modifying, deleting, validating 9.4) Fail processing versus database 9.5) Database Management Systems: data dictionary, fail retrieval and maintenance, data security, backup and recovery
10. Privacy, Security, Ethics, and Ergonomic 10.1) Privacy: how to protect privacy and personal responsibility 10.2) Security: threats to computer security, computer criminal, computer crime, and measure of protections 10.3) Ethics issue 10.4) Ergonomics: physical health, mental health, green PC
11. Applications Module (Computer Lab Session) 11.1) Introduction to Windows:- Features and editions; Basic: Interface, part of a window, dialog box; Desktop: window Aero, taskbar, menu bar, flip 3D; Window Explorer: File & folder, searching, libraries; Customization: Gadgets, themes; Accessories: Calculator, paint, recorder, snipping tool, system tools; Shortcut keys 11.2) Word Processing Software:- Create: open, new, and save; Edit: select, copy, cut and paste; Insert graphics; Format: paragraph formatting, word wrap, auto content, format painter, page numbering, header and footer, bullets and numbered lists and text alignment; Customizing: table and columns formatting; Tools: spelling and grammar checker; Preview and printing: properties, paging, page setup and margin 11.3) Spreadsheet Software:- Create: open, new, and save; Edit: copy, cut and paste; Format: format cell, text alignment, word wrap, merge and centre; Customizing: column width, row height, auto format; Formulas and functions: fill handle, sum, average, max, min, and arithmetic expression; Chart: chart wizard, modifying, editing and formatting; Analysis: sort and validation; Printing: properties, paging, page setup and margin 11.4) Presentation Graphic Software:- Create: blank, auto content wizard, design templates; Drawing: clip art, and insert files; Insert object: media, video, music, movies and charts, Hyperlinks; Slide effect: layouts, transition, custom animation and timing; View: Master slide, slide sorter and slide outline; Slide show tools: current slide, previous, next and go to slide; Printing: option (handout, slide and notes), properties, paging, page setup and margin 11.5) Database Management Software / Publication Software / Web Authoring Tools / SPSS / Math LAB / Other relevant applications/tools (Choose 1)

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment 1 and Assignment 2	20%	CLO2
	Group Project	Lab Project	10%	CLO3
	Test	Test 1	10%	CLO1
	Test	Test 2	10%	CLO1

Reading List	Recommended Text	• **Misty E. Vermaat,Susan L. Sebok,Steven M. Freund,Jennifer T. Campbell,Mark Frydenberg 2018, *Discovering Computers, Essentials ©2018: Digital Technology, Data, and Devices*, Cengage Learning [ISBN: 9781337285117]** • **Misty E. Vermaat,Susan L. Sebok,Jennifer T. Campbell,Steven M. Freund, *Discovering Computers, Essentials ©2018, Loose-Leaf Version* [ISBN: 9781337388511]**
	Reference Book Resources	• **Gary B. Shelly,Misty Vermaat 2017, *Discovering Computers*, International Edition Ed., Thomson South-Western [ISBN: 9781111530419]** • **Alan Evans,Kendall Martin,Mary Anne Poatsy 2014, *Technology in Action, Complete*, 11th Edition Ed., Pearson College Division [ISBN: 9780133802962]** • **Daniel O'Leary,Linda O'Leary,Timothy O'Leary 2014, *Computing Essentials 2015 Complete Edition*, 25th Edition Ed., McGraw-Hill Education [ISBN: 9780073516899]** • **Anita Goel 2010, *Computer Fundamentals*, Pearson Education India [ISBN: 9788131733097]**
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	