

Macao Polytechnic University

Faculty of Languages and Translation

Bachelor of Arts in Chinese-English Translation and Interpretation

Module Outline

Academic Year 2022 / 2023 Semester 1

Learning Module	Information Technology Fundamentals	Class Code	COMP1101-115/116		
Pre-requisite(s)	Nil				
Medium of Instruction	Cantonese/English			Credit	2
Lecture Hours	26 hrs	Lab/Practice Hours	4 hrs	Total Hours	30 hrs
Instructor	Phillip Cheong		E-mail	ncheong@mpu.edu.mo	
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Description

This is an introductory course on computers and their role in the modern world, preparing students for the challenges of tomorrow's workplace by equipping them with knowledge to engage in fast-moving information technology. It is designed to develop an in-depth understanding of why computers are essential components in the business world and society. Topics include basic concepts of software and hardware, theory behind the computer operations, and some simple applications.

Learning Outcomes

After completing the learning module, students will be able to:

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1. To impart a level of computer literacy appropriate for general computer use.
2. To explain basic local networking and Internet functions in depth.
3. To explain the applications of software and hardware in depth.
4. To explain the significance of the role of the computer in society including security, ethical and legal issues.

Content

1. Overview of Campus Network and Resources (1.5 hours)
 - 1.1. Introduction of MPU Campus Network
 - 1.2. SIWeb
 - 1.3. MPU Web Mail
 - 1.4. Introduction to ZOOM and MPU Online Learning Resources
 - 1.5. Use of Antivirus Program
 - 1.6. Library E-resources – find popular items, E-books and conference/journal articles
 - 1.7. Internet Searching Skills

2. Introducing Today’s Technologies: Computers, Devices, and The Web (3 hours)
 - 2.1. Today’s Technology
 - 2.2. Computers, Mobile and Game Devices
 - 2.3. Data and Information

3. Connecting and Communicating Online: The Internet, Websites, and Media (3 hours)
 - 3.1. The Internet
 - 3.2. The World Wide Web
 - 3.3. Other Internet Services

4. Computers and Mobile Devices: Evaluating Options for Home and Work (3 hours)
 - 4.1. Mobile Computers and Desktops
 - 4.2. Cloud Computing
 - 4.3. Protecting Hardware
 - 4.4. Health Concerns of Using Technology

5. Programs and Apps: Productivity, Graphics, Security, and Other Tools (1.5 hours)
 - 5.1. Productivity Applications
 - 5.2. Graphics and Media Applications
 - 5.3. Personal Interest Applications
 - 5.4. Communications Applications
 - 5.5. Utility Programs

6. Digital Security, Ethics, and Privacy: Threats, Issues, and Defenses (6 hours)
 - 6.1. Digital Security Risks and Threats
 - 6.2. Internet and Network Attacks
 - 6.3. Unauthorized Access and Use
 - 6.4. Software Theft, Information Theft, and Hardware Theft
 - 6.5. Ethics and Society
 - 6.6. Information Privacy

7. Computing Components: Processors, Memory, the Cloud, and More (1.5 hours)
 - 7.1. Inside the Case
 - 7.2. Processors, Cloud Computing, Memory, Adapters, Buses, and Power Supply
 - 7.3. Data Representation

8. Input and Output: Extending Capabilities of Computers and Mobile Devices (1.5 hours)
 - 8.1. Input Devices (Motion Input and RFID Reader etc.)
 - 8.2. Output Devices (Plotter and 3D Printer etc.)
 - 8.3. Assistive Technology Input and Output

9. Digital Storage: Preserving Content Locally and on the Cloud (3 hours)
 - 9.1. Hard Drives
 - 9.2. Portable Flash Memory Storage
 - 9.3. Cloud Storage and Enterprise Storage
 - 9.4. Other Types of Storage

10. Operating Systems: Managing, Coordinating, and Monitoring Resources (3 hours)
 - 10.1. Operating Systems Functions
 - 10.2. Desktop Operating Systems, UNIX, Server Operating Systems
 - 10.3. Mobile Operating Systems

11. Communicating Digital Content: Wired and Wireless Networks and Devices (3 hours)
 - 11.1. Communications
 - 11.2. Types of Networks
 - 11.3. Communications Software
 - 11.4. Network Communications Standards and Protocols
 - 11.5. Communications Devices and Transmission Media
 - 11.6. WiFi 6
 - 11.7. IPv6

Teaching Method

Lectures, case studies, group discussion

Attendance

Attendance requirements are governed by the “Academic Regulations Governing Bachelor’s Degree Programmes of Macao Polytechnic University”.

Assessment

This learning module is graded on a 100 point scale, with 100 being the highest possible score and 50 being the passing score.

		Item	Description	Percentage	
Assignments and Assessments	1	Assignmen	Home-based exercises	10%	50%
	2	Test	Knowledge assessment	30 %t%	
	3	Group Project	Knowledge assessment	10 % %	
	4			%	
	5			%	
	6			%	
Final Exam	7	Final Exam	—	—	50%
Total Percentage					100%

Cheating Warning: Plagiarism is an act of fraud. It is using others’ ideas and words without clearly acknowledging the source of that information. A zero mark will normally be given to that piece of work if a student copies someone else’s work or lets someone copy his/her own work.

Teaching Material(s)

Vermaat, Sebok, Freund, Campbell, and Frydenberg (2018). *Discovering Computers 2018* (1st ed.). Cengage Technology.

Reference

- D. Morley, C. S. Parker. (2017). *Understanding Computers: Today and Tomorrow, Comprehensive* (16th ed.). Cengage Technology.
- B. K. Williams, S. C. Sawyer. (2010). *Using Information Technology: a practical introduction to computers & communications* (8th ed.). McGraw-Hill.