City University of Hong Kong
Course Syllabus

offered by Department of Computer Science
with effect from Semester A 2022/23

Part I   Course Overview

Course Title:	Introduction to Computer Studies
Course Code:	CS1102
Course Duration:	One semester
Credit Units:	3 credits
Level:	B1
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	CS1302 Introduction to Computer Programming

Part II   Course Details

1.   Abstract
(A 150-word description about the course)

This course aims to provide an introduction to computing concepts, skills and the technologies behind the Internet. Students are introduced to software tools, web content scripting and basic computer programming. No prior programming or computer science experience is required.

2.   Course Intended Learning Outcomes (CILOs)
(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs[#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Describe the basic principles of computer systems, networks, Internet and information security.		✓		
2.	Inquire and evaluate the social, ethical, and safety issues of emerging technologies and innovations.		✓	✓	
3.	Demonstrate the use of software tools and the ability to write simple programs using a scripting language.		✓	✓	✓
4.	Apply basic programming concepts to develop simple computer programs.			✓	✓
		100%			

* If weighting is assigned to CILOs, they should add up to 100%.
[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

A1:   *Attitude*
   Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.
A2:   *Ability*
   Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.
A3:   *Accomplishments*
   Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Teaching and Learning Activities (TLAs)
(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No. 1	CILO No. 2	CILO No. 3	CILO No. 4	Hours/week (if applicable)
Lectures/ Demonstrations	All CILOs will be introduced, explained, discussed and demonstrated through lectures. Online resources will also be given for out-of-classroom reading and learning.	✓	✓	✓	✓	3 hours per week
Labs	Labs will be held in "terminal rooms", in which concepts and operations presented in lectures will be demonstrated and exercised. Additional tasks will also be given for self practice.		✓	✓	✓	1 hour per week
Project	This project will give students a hands-on experience to discover and comprehend a particular computer topic. It will also give students an opportunity to demonstrate their abilities of using productivity software tools to create the presentation slides and report.	✓	✓			After class

4. Assessment Tasks/Activities (ATs)
(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No. 1	CILO No. 2	CILO No. 3	CILO No. 4	Weighting*	Remarks
Continuous Assessment: 40%						
Lab exercises			✓	✓	5%	
Online homework	✓	✓	✓		5%	
Project	✓	✓			10%	
Midterm test	✓	✓	✓	✓	20%	
Examination^: 60% (duration: 2 hours)						
* The weightings should add up to 100%.					100%	

^ For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Project	1.1 Study for a particular topic of computer technology	High	Significant	Moderate	Basic	Not even reaching marginal levels
	1.2 Presentation of findings for the topic	High	Significant	Moderate	Basic	Not even reaching marginal levels

Part III   Other Information (more details can be provided separately in the teaching plan)

1. **Keyword Syllabus**
    (An indication of the key topics of the course.)

    - Logical operations
    - Binary arithmetic
    - Basic operations of computer, data, CPU, memory, bus, IO, peripherals
    - Programming concepts – instructions, programs, need for high-level language, compilers, interpreters
    - Basic data types (integers, Boolean, characters and strings)
    - Variables, expressions, and operations
    - Compound statements and control structures
    - Functions and parameters
    - Operating systems – Unix, Windows
    - File system
    - End-user computing - word processing, spread sheet, presentation tool
    - Databases
    - Data communication - switches, networks, LANs, WANs, routers
    - Internet – internet protocol, internet applications, email, file transfer, web browser, web server, web searching, basic html/css
    - Concepts of client-side and server-side scripting
    - Digital media, multimedia software tools
    - Basic computer security, virus, filtering and scanning tools

2. **Reading List**
2.1 **Compulsory Readings**
    (Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Timothy J. O'Leary, Linda I. O'Leary and Daniel A. O'Leary (2021). *Computing Essentials 2021*, McGraw Hill Education.

2.2 **Additional Readings**
    (Additional references for students to learn to expand their knowledge about the subject.)