THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY | HKUST Summer School

COMP 1021 – Introduction to Computer Science

School:	**School of Engineering**
Subject Area:	**Computer Science and Engineering**
Course Credit:	**3**
Instructor:	**WANG Shuai**
Pre-requisite/co-requisite:	**Nil**

Notes:

- The syllabi provided here is for reference only and may be subject to changes and adjustments as determined by the course instructors.

The Hong Kong University of Science and Technology

UG Course Syllabus

Introduction to Computer Science

COMP 1021

3 Credits

Exclusion(s): COMP 1022P, COMP 1022Q (prior to 2020-21), COMP 2011, COMP 2012H

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Course Description

This course introduces students to the world of computer science. Students will experience a range of fun and interesting areas from the world of computing, such as game programming, web programming, user interface design and computer graphics. These will be explored largely by programming in the Python language.

List of Topics

- Introduction to Python
- Introduction to Turtle Graphics
- Comments and Text
- Making Decisions
- Loops
- Lists and Tuples
- Slicing
- Functions
- Data Types
- File Handling
- Dictionaries
- State Diagrams
- Turtle Object Creation
- Event Handling
- Stacks

- Advanced Operators
- Objects
- Recursion

Intended Learning Outcomes (ILOs)

On successful completion of this course, students are expected to be able to:

1. Demonstrate programming skills, with an emphasis on the Python programming language

2. Write programs in interesting areas such as game programming, computer graphics and user interface design

Assessments:

There are two ways to assess each student:

- Scheme A (more midterm %): Midterm 24%, Lab projects 36%, Final exam 40%
- Scheme B (less midterm %): Midterm 0%, Lab projects 42%, Final exam 58%

The course will automatically choose the highest mark of these two assessment schemes.

Assessment Task	**Contribution to Overall Course grade (%)**	
	Scheme A (more midterm %)	**Scheme B (less midterm %)**
Labs x 3	36% (12% for each lab)	42% (14% for each lab)
Midterm examination	24%	0%
Final examination	40%	58%

Required Texts and Materials

Interactive Python Programming for Beginners, written by Gibson Lam and David Rossiter

Additional Resources

N/A