

# The Hong Kong University of Science and Technology

## UG Course Syllabus

### C Programming Bridging Course

COMP 1029C

1 Credit

Exclusion(s): COMP 2011

Prerequisite(s): COMP 1021 OR COMP 1022P OR COMP 1022Q OR ISOM 3230 OR ISOM 3320

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### Course Description

This course introduces the C programming language. It is intended for students who already have some experience in computer programming but wish to learn how to apply those programming skills to the C language. The course covers basic programming topics, such as variables, control, loops, and functions, to more advanced topics. Students explore these by self-learning of course materials together with guided programming exercises. Students without the prerequisites but possess relevant programming knowledge may seek instructor's approval for enrolling in the course. Graded P or F.

### List of Topics

Introduction to C

- C Basics
- Variables
- Text Input and Output

Essential Programming in C

- Making Decisions
- For Loops
- While Loops

Functions and Arrays

- Functions
- Variable Scope
- Arrays

Strings and Structures

- Strings
- Structures
- Random Numbers

Advanced Topics

- File Input and Output
- Recursion

### **Intended Learning Outcomes (ILOs)**

1. Define basic programming elements such as variables, control, loops and functions in C
2. Describe data structures and data abstraction in C
3. Implement advanced programming concepts in C
4. Design, write and debug computer programs in C

### **Assessments:**

<b>Assessment Task</b>	<b>Contribution to Overall Course grade (%)</b>
Online exercises	50%
Final examination	50%

### **Required Texts and Materials**

N/A

### **Additional Resources**

Online course content to be published in HKUST canvas when the semester begins.