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THE CHINESE UNIVERSITY OF HONG KONG
Print Course Catalog Details

May 10, 2023
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Academic Org: Dept of Computer Sci & Engg – Subject: Computer Science

Course: CSCI1540   **Course ID:** 010473   **Eff Date:** 2022-07-01   **Crse Status: Active**   **Apprv. Status:** Approved   【Course Rev】

Fundamental Computing with C++ 基本計算學（C++語言）

This course introduces fundamental computing principles, problem-solving methods and algorithm development, simple data structures, illustrative applications. The C++ programming language will be used.

本科介紹基本計算學原理、問題求解方法及算法開發、簡單數據結構、應用示例。本科使用高級程序設計語言"C++"講授。

Grade Descriptor: A

EXCELLENT – exceptionally good performance and far exceeding expectation in all or most of the course learning outcomes; demonstration of superior understanding of the subject matter, the ability to analyze problems and apply extensive knowledge, and skillful use of concepts and materials to derive proper solutions.

有關等級說明的資料，請參閱英文版本。

B

GOOD – good performance in all course learning outcomes and exceeding expectation in some of them; demonstration of good understanding of the subject matter and the ability to use proper concepts and materials to solve most of the problems encountered.

有關等級說明的資料，請參閱英文版本。

C

FAIR – adequate performance and meeting expectation in all course learning outcomes; demonstration of adequate understanding of the subject matter and the ability to solve simple problems.

有關等級說明的資料，請參閱英文版本。

D

MARGINAL – performance barely meets the expectation in the essential course learning outcomes; demonstration of partial understanding of the subject matter and the ability to solve simple problems.

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有關等級說明的資料，請參閱英文版本。

F

FAILURE – performance does not meet the expectation in the essential course learning outcomes; demonstration of serious deficiencies and the need to retake the course.

有關等級說明的資料，請參閱英文版本。

Equivalent Offering:
Units: 3 (Min) / 3 (Max) / 3 (Acad Progress)
Grading Basis: Graded
Repeat for Credit: N
Multiple Enroll: N
Course Attributes:

Topics:

COURSE OUTCOMES

Learning Outcomes:

At the end of the course of studies, students will have acquired the ability to
1. write, understand, compile and debug C++ programs;
2. write programs using the basic programming elements such as variables, data types, selection and looping control structures, functions, and arrays;
3. understand the basic concepts of call-by value, call-by-reference and function overloading;
4. perform dynamic memory allocation and manage pointers;
5. write applications using elementary data structures such as 2-D array and strings, etc.;

Course Syllabus:

This course introduces fundamental computing principles, problem-solving methods and algorithm development, simple data structures, illustrative applications. The C++ programming language will be used.

Assessment Type:

Essay test or exam	:	60%
Others	:	40%

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Feedback for Evaluation:

1. Midterm and final course evaluation
2. Exam
3. In class informal survey

Required Readings:

nil

Recommended Readings:

1. Walter Savitch, Problem Solving with C++ (6th edition), Addison-Wesley. 2006
2. Bjarne Stroustrup, The C++ Programming Language (3rd Edition), Addison-Wesley.
3. Stephen Prata, C++ Primer Plus (5th Edition), Sams.

OFFERINGS

1. CSCI1540 — Acad Organization=CSD; Acad Career=UG

COMPONENTS

LEC : Size=30; Final Exam=Y; Contact=3
TUT : Size=30; Final Exam=N; Contact=1

ENROLMENT REQUIREMENTS

1. CSCI1540 — **Enrollment Requirement Group:**
Not for students who have taken AIST1110 or CSCI1020 or CSCI1110 or CSCI1120 or CSCI1130 or CSCI1510 or CSCI1520 or CSCI1530 or ESTR1100 or ESTR1102

New Enrollment Requirement(s):
Exclusion = no change

CAF

eLearning hrs for blended cls   0
No. of micro-modules   0
Research components (UG)   0%

< E N D O F R E P O R T >