

Academic Org: Dept of Computer Sci & Engg – Subject: Computer Science

Course: CSCI1120 **Course ID:** 002560 **Eff Date:** 2022-07-01 **Crse Status:** Active **Apprv. Status:** Approved **[New Course]**
Introduction to Computing Using C++ 計算導論 (C++語言)

This course introduces the computer-oriented problem-solving methods and algorithm development; object oriented programming concepts; concepts of abstract data types; simple data structures; illustrative applications. The C++ programming language will be used.

本科介紹面向計算機的問題求解方法及算法開發；面向對象程序設計概念；抽象數據類型概念；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.

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:

1. Be able to write, understand, compile and debug C++ programs
2. Be able to write programs using the basic programming elements such as variables, data types, selection and looping control structures, functions, and arrays;
3. Be able to perform dynamic memory allocation and manage pointers;
4. Be able to implement and instantiate classes, and invoke methods;
5. Understand the basic concept of data encapsulation, polymorphism, and inheritance;

Course Syllabus:

This course introduces the computer-oriented problem-solving methods and algorithm development; object oriented programming concepts; concepts of abstract data types; simple data structures; illustrative applications. The C++ programming language will be used.

Assessment Type:

Others : 30%
Short answer test or exam : 70%

Feedback for Evaluation:

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

Required Readings:

nil

Recommended Readings:

1. C By Dissection by Al Kelley and Ira Pohl 4th ed., Addison-Wesley Publishing Co. Inc.
2. C: How to program by H.M. Deitel & P.J. Deitel 3rd ed., Prentice Hall
3. The C Programming Language by Brian W. Kernighan & Dennis M. Ritchie, Prentice Hall.

OFFERINGS

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

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