

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

Course: CSCI1120 **Course ID:** 002560 **Eff Date:** 2024-07-01 **Crse Status:** Active **Apprv. Status:** Approved [Course Rev]
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 CSCI1130 or CSCI1510 or CSCI1520 or CSCI1530 or CSCI1540 or CSCI1550 or ESTR1100 or ESTR1102

New Enrollment Requirement(s):
Exclusion = Change from "AIST1110 or CSCI1020 or CSCI1110 or CSCI1130 or CSCI1510 or CSCI1520 or CSCI1530 or CSCI1540 or ESTR1100 or ESTR1102" to "AIST1110 or CSCI1020 or CSCI1130 or CSCI1510 or CSCI1520 or CSCI1530 or CSCI1540 or CSCI1550 or ESTR1100 or ESTR1102"

Additional Information

eLearning hrs for blended cls 0
VTL-Onsite face-to-face hrs 0
VTL-Online synch. hrs 0
VTL-Online asynch. hrs 0
No. of micro-modules 0
Research components (UG) 0%

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