

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

**Course:** CSCI1130      **Course ID:** 002561      **Eff Date:** 2024-07-01      **Crse Status:** Active      **Apprv. Status:** Approved      **[Course Rev]**  
Introduction to Computing Using Java 計算導論 (JAVA語言)

This course aims at providing students with the basic knowledge of computer programming. In particular, programming methodologies such as object-oriented programming and structured programming, and the use of abstract data types will be illustrated using high-level programming languages such as Java.

本科旨在向學生提供計算機程序設計之基礎知識，並以高級程序設計語言（如Java）講解包括面向對象程序設計和結構程序設計等之程序設計方法學及抽象數據類型之運用。

**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. An understanding of basic computer architecture and how it affects programming language design;
2. An understanding of objects, classes, message passing, inheritance, and polymorphism;
3. An understanding of identifiers (names), variables, types, and variable assignment;
4. To be able to program using variables of numeric, boolean, and character types;
5. To be able to utilize supplied classes to program new applications;
6. To be able to create classes and class hierarchies;
7. An understanding of and the ability to program with control programming constructs: sequencing, selection, iteration, and exception handling;
8. An understanding of and the ability to program with recursion;
9. To be able to program File Input/Output and basic programming of Graphical User-Interface;
10. To carry out all of the above in a practical Object-Oriented Programming language, such as Java

**Course Syllabus:**

This course aims at providing students with the basic knowledge of computer programming. In particular, programming methodologies such as object-oriented programming and structured programming, and the use of abstract data types will be illustrated using high-level programming languages such as Java.

**Assessment Type:**

Essay test or exam : 50%  
Lab reports : 25%  
Others : 25%

**Feedback for Evaluation:**

1. Course evaluation by students;
2. Newsgroup discussion;

**Required Readings:**

nil

**Recommended Readings:**

1. C. Thomas Wu, An Introduction to Object-Oriented Programming With JAVA, 4th Edition Update, McGraw-Hill, 2005
2. Harvey M. Deitel & Paul J. Deitel, JAVA How to Program, 6th Edition, Prentice Hall, 2004

**OFFERINGS**

1. CSCI1130 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. CSCI1130

**Enrollment Requirement Group:**

Not for students who have taken AIST1110 or CSCI1030 or CSCI1120 or CSCI1510 or CSCI1520 or CSCI1530 or CSCI1540 or CSCI1550 or ESTR1100 or ESTR1102

**New Enrollment Requirement(s):**

Exclusion = Change from "AIST1110 or CSCI1030 or CSCI1110 or CSCI1120 or CSCI1510 or CSCI1520 or CSCI1530 or CSCI1540 or ESTR1100 or ESTR1102" to "AIST1110 or CSCI1030 or CSCI1120 or CSCI1510 or CSCI1520 or CSCI1530 or CSCI1540 or CSCI1550 or ESTR1100

or ESTR1102"

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**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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