

# 程式設計 (二)

## Goal

The goal of this course is to introduce the programming language C++. C++ is derived from the famous programming language C. Object-oriented programming (OOP), a powerful programming technique, is implemented in C++ language. C++ language has become the most popular programming language in academia and industry. Students will gain experience in C++ programming through several assignments.

## Instructor

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## Office hour

By appointment

## Textbook

Problem solving with C++, 6<sup>th</sup> ed., Walter Savitch, Addison Wesley, 2006.  
(ISBN: 0-321-44263-6)

## Topics included

- ◆ Introduction
- ◆ C++ Basics
- ◆ Flow of Control
- ◆ Procedural Abstraction and Functions
- ◆ Advanced Functions
- ◆ I/O Streams
- ◆ Classes
- ◆ Friends and Overloaded Operators
- ◆ Separate Compilation and Namespaces
- ◆ Arrays, Strings, and Vectors
- ◆ Pointers and Dynamic Arrays
- ◆ Inheritance
- ◆ Linked Lists and Recursion (if time permits)
- ◆ Exception Handling and Templates (if time permits)
- ◆ Window Programming (if time permits)

## Grading

Class participation	10%
Homework	40%
Midterm and final exams	50%