計算機程式設計 (I)
Computer Programming I

- **Instructor**
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  - Office Hours: Wed. 1-2pm or by arrangement

- **Time**
  - Lecture: Wed. 2-4 sessions (9:10am – 12:00pm)
  - Lab: Thur. FG sessions (7:10pm – 9:00pm)

- **Place**
  - Lecture: 大仁 200301
  - Lab: PC Lab

- **Teaching Assistants**
  - 吳武峰
  - 簡傑
  - 洪晙宸
  - 陳弈玄

- **Goal**

  本課程是以 C 語言為主介紹程式設計的基礎知識，目的在培養學生對計算機程式的組成、結構、與設計之基本瞭解。

- **Description**

  本課程將以 C 語言並且以 UNIX 環境為主，介紹程式設計所需的基礎知識，包括：

  1、使用電腦搜尋資料、編輯文件的基礎技能
  2、使用文字編輯器及程式編譯器編譯程式的能力
  3、使用整合基工具進行編譯及偵錯的能力
  4、瞭解 C 語言的基本組成與資料型態
  5、結構化程式設計

６、程式流程控制

７、C 函式

８、陣列與指標

９、結構與列舉

１０、輸出與輸入

１１、基本資料結構

１２、其他進階主題

- **Enrollment**: Freshmen of CS department
- **Prerequisite**: Basic PC knowledge
- **Textbooks**
  - *C: How to Program (8th Edition), Paul Deitel, Harvey M. Deitel.（全華圖書代理）*
  - *The C programming Language (2nd Edition)*, K&R. （全華圖書代理）
  - *Unix Unbounded a beginning approach,* AMIR Afzal.

- **Grading**

  課程要求：學生得自行撰寫每次程式作業以及實習課練習。
  - Midterm: 30%
  - Final Exams: 35%
  - Labs & Assignments: 35%
  - Bonus (participation): < 5%

- **Assignments**: There would be 8 to 10 assignments.

- **Assignment Submission**
  - **Electronic submission**: Make sure your codes can be compiled and executed in 'ghost', because it is the platform that we grade your submissions.

- **Late Policy**
  - Score for late submission is calculated as follows:
    original points – n * 20 points (note: n = # of delay days)

  - For example, if an assignment were delayed by 3 days and its original score were 80, then the score of the assignment would be: 80 – 3 * 20 = 20 points.

- **Grade Appeal**
  - Student has two weeks (from the date handed back) to request a re-grade or appeal the grade recorded in the GradeBook. A re-grade will be performed on the entire Lab/Assignment/Exam and can lower the score!!

  - In any appeal procedure, it's the student's responsibility to keep possession of his/her Lab/Assignment/Exam. In the process of a re-grade, a student has to arrange for a TA to modify the grade in the presence of the student. A student should not hand over any material to the TA for keeping.

  - A lost or missing Lab/Assignment/Exam is no reason for a modification of a grade.

- **Cheat Policy**
  - SEVER PENALTIES ARE APPLIED FOR THE FOLLOWINGS
    - Actively sharing (or copying) all or parts of someone else's code/answers on Assignment/Exam
    - Passively allowing the sharing (or copying) of your own codes/answers on Assignment/Exam

  - What is Cheating?
    - On Assignments: allowing others to view your code or reading some else's source code constitutes cheating. Students should protect their own work so that anther student cannot copy any part of their code. Therefore, if copying has been detected, it will be assumed that cheating has occurred by all parties involved.
    - On Exams: allowing others to view your answers or reading someone else's answer constitutes cheating.

  - Penalties
    - A zero score for the assignment and a deduction of 20 points from the student's course point total.
    - A second occurrence of cheating will mean an automatic grade of ZERO in the course and the notification of a Dean in student's college.

- Schedule (Tentative)

Week	Topics
1	Course Introduction; World of Programming
2	Unix Environment; Utilities of Development
3	Introduction to the C language
4	Structured Program Development
5	Program Control Flow
6	Function; Array
7	Pointer (I)
8	Pointer (II)
9	**Midterm**
10	Strings
11	Structure, Union, and enum
12	Formatted I/O
13	File Processing
14	Basic Data Structure
15	Problem Solving
16	Other C topics
17	OOP and Review
18	**Final Exams**