

Fall 2012

電機資訊學院 EECS
Course number: To be determined
Course title: 計算機程式設計
Introduction to Programming

Course Instructor:	Prof. Hwann-Tzong Chen 陳煥宗 教授 625 台達館 31309 htchen@cs.nthu.edu.tw
Office hours:	To be determined
TA:	To be determined

Required Textbook

S. Prata, C PRIMER PLUS, Fifth Edition. SAMS, 2005.

Reference Textbook

B. W. Kernighan and D. M. Ritchie, THE C PROGRAMMING LANGUAGE, Second Edition. Prentice Hall, 1988.

Purpose of the Course

The goal of this course is to equip EECS students with essential coding skills for forthcoming courses that demand programming. The students are expected to acquire sufficient ability and experience in transforming ideas into computer programs. They will learn the C programming language in three months and use their coding skills to create a computer game as the final project.

Grading Criteria

The grade is based on the scores of fifteen homework assignments plus labs, two midterm exams, one final exam, and the final project, with the following percentages:

1. Homework and labs (30%) — An additional task for each of the fifteen homework assignments has to be done in PC lab every Thursday evening.
2. Two midterm exams (30%)
3. One final exam (20%)
4. Final project (20%)

Labs: Thursday Evening, 8pm–9pm, 304 資電館

Midterm Exams: Thursday, November 1, 2012, 7pm–10pm, 304 資電館
Thursday, December 13, 2012, 7pm–10pm, 304 資電館

Final Exam: Thursday, January 17, 2013, 7pm–10pm, 304 資電館

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EECS INTRODUCTION TO PROGRAMMING
COURSE SCHEDULE AND OUTLINE

Week	Topics	Labs and Exams
1	CH. 1 Getting Ready CH. 2 Introducing C	Lab #0
2	CH. 3 Data and C CH. 4 Formatted Input/Output	Lab #1
3	CH. 5 Operators, Expressions, and Statements	Lab #2
4	CH. 6 Control Statements: Looping	Lab #3
5	CH. 7 Control Statements: Branching	Lab #4
6	CH. 8 Character I/O and Redirection	Lab #5
7	CH. 9 Functions	Midterm Exam I
8	CH. 9 Functions <i>Recursion</i>	Lab #6
9	CH. 10 Arrays and Pointers <i>Arrays</i>	Lab #7
10	CH. 10 Arrays and Pointers <i>Pointers</i>	Lab #8
11	CH. 11 String Functions CH. 13 File Input/Output CH. 15 Bit Manipulation	Lab #9
12	CH. 12 Memory Management CH. 14 Structures	Lab #10
13	CH. 16 The C Preprocessor and the C Library	Midterm Exam II
14	CH. 17 Advanced Data Representations <i>Linked Lists</i> <i>Trees</i>	Lab #11
15	Examples of Final Project	Lab #12
16	Examples of Final Project	Lab #13
17	Examples of Final Project	Lab #14
18	Final Project Demo	Final Exam