Syllabus — 編譯系統 (Spring, 2006)

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2. 助教: 陳柏年
   台大資訊工程研究所博二
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   TA office hours: 每禮拜五下午 3:30–5:30 [AT] 332實驗室


4. Class materials:
   - Class notes

5. 上課時間及地點: 每週四 2:20PM－5:10PM, 習102.

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6. Class dates:  Apr  6  13  20 (mid-term)  27  
                 May  4  12  18  25  
                 Jun  1  8  15

7. Office hours: by appointments; before or after the classes.

8. Prerequisites: assembly language, high-level programming language (C-like language), data structures, and automata.

9. Topics: (Reading ch#2 and ch#12 by yourself is expected.)
   (a) Introduction (ch#1)
   (b) Lexical analysis (Scanner): (ch#3.1, 3.3, 3.4, 3.6, 3.7, 3.5) regular expressions, finite state machine, LEX
   (c) Syntax analysis (Parser): (ch#4.2–4.5, 4.7, 4.8) context-free grammar, top-down parsing, LL(1), bottom-up parsing, SLR, LR(0), LR(1), LALR(1)
   (d) Syntax-directed translation (ch#5.1–5.6, 4.9) and YACC
   (e) Symbol tables (ch#7.6, 6.5, 6.3)
   (f) Run time storage organization (ch#7.1–7.5, 7.7–7.9)
   (g) Code generation (ch#8) declarations, expressions, advanced data structure, control flow, procedure/function
   (h) Optimization (ch#9):
   (i) How to write a compiler (ch#11)
   (j) Advanced topics¹: error handling (ch#4), optimization (ch#10), ...

¹if time allowed.
10. Evaluation:

(a) homeworks (25%): all due dates for homeworks are **FIRM**, one homework per 2 to 3 lectures.

作业遲交每一天扣10%, 抄襲(被抄襲)均不計分.

(b) mid-term exam (35%);

(c) final project (40%): check points, documents, presentation, and testing;

(d) class participation and performance.