Syllabus —  編譯系統(Spring, 2005)

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4. Class materials:
   - Class notes

5. 上課時間及地點: 每週四2:20PM—5:10PM, 資102.

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

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

7. 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, 4.7–4.9 excluding error handling) context-free grammar, top-down parsing, LL(1), bottom-up parsing, SLR, LR(0), LR(1), LALR, YACC
   (d) Syntax-directed translation (ch#5)
   (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.
8. Evaluation:

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

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

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

(d) class participation and performance.