General Information
Class meetings: TTh 5:00-6:15pm in CPR 254

Professor: Jay Ligatti (ligatti@cse.usf.edu)
Office hours: WF 4:30-6pm, and other times by appointment, in ENB 333

Teaching Assistant: Donald Ray (dray3@cse.usf.edu)
Office hours: MF 4:30-6pm, in ENB 327
Duties: Grade assignments and answer questions about assignments

Textbook: *Compiler Construction: Principles and Practice*, by Kenneth Louden (1997)

Please check the course webpage (http://www.cse.usf.edu/~ligatti/compilers-15) regularly for announcements, assignments, and an up-to-date schedule. Grades will be posted on Canvas (http://my.usf.edu/). I may also send announcements via Canvas, so please ensure that your current email address is stored there.

Course objectives: Students having successfully completed this course will understand the basic techniques of software compilation, including lexical, syntactic, and semantic analyses, code generation and optimization, and garbage collection.

***Tentative* Schedule**

Week	Dates	Topics	Reading
1	08/25, 08/27	Introduction; Compilation phases; DJ	1.1-1.7
2	09/01, 09/03	Lexical analysis	2.1-2.3, 2.6
3	09/08, 09/10	Lexical analysis; Syntactic analysis	2.4, 3.1-3.4
4	09/15, 09/17	Syntactic analysis	5.1-5.2, 4.3.1-4.3.2
5	09/22	Syntactic analysis	5.3-5.5, 4.1-4.2, 4.3.3
6	09/29, 10/01	Abstract syntax trees; Review	Class notes
7	10/06, 10/08	Test I; Abstract syntax trees	Class notes
8	10/13, 10/15	Semantic analysis	Class notes
9	10/20, 10/22	Semantic analysis; Code generation	7.1
10	10/27, 10/29	Code generation; Review	Class notes
11	11/03, 11/05	Test II; Code generation	7.3.1
12	11/10, 11/12	Code generation	7.4
13	11/17, 11/19	Garbage collection	Class notes
14	11/24	Code optimizations	8.9
15	12/01, 12/03	Advanced topics; Review	Class notes
Final	12/08 (Tuesday), 3-5pm		All tests are cumulative

Grading and Attendance

Tests: There will be three tests (10/06, 11/03, and 12/08). Tests are closed notes, books, laptops, phones, smart watches, neighbors, associates, contemporaries, etc. Graduate students will be asked to solve additional problems, beyond what is asked of undergraduates.

Assignments: There will also be six programming assignments, due at 11:59pm on the following dates: 9/6, 9/20, 10/11, 10/25, 11/15, and 12/4. These assignments will build up a compiler for programs written in a new language called DJ (Diminished Java).

Final-grade breakdown:

37%	Assignments	(5% Assignment I; 3% Assignment II; 5% Assignment III; 5% Assignment IV; 9% Assignment V; 10% Assignment VI)
63%	Tests	(19% Test I; 19% Test II; 25% Test III)
---	---	---
100%	Total	

Extra credit: You may complete an independent project for extra credit. You'll have to demonstrate the project and turn in a description of your work. If interested, please email a proposal to ligatti@cse.usf.edu.

Attendance: I don't take attendance in class, but absences put you at risk for missing assignments, schedule updates, and material not covered in the textbook. Students who'll miss class for religious reasons must notify me of the date(s) in writing by 8/28/15. Finally, please do not sell notes from or record class lectures without my permission.

Late assignments: For each day an assignment is late (up to a maximum of 3 days), the grade is reduced 10%. For example, if you submit a 90%-correct assignment 2 days late, your overall assignment score will be 70%.

Grading scale: For final letter grades, I use the standard scale of A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0). I also use pluses and minuses on final grades to indicate either a borderline grade (i.e., within 2.5 points of an adjacent grade) or exceptionally outstanding work (A+). Although I may curve test/assignment scores up, with graduate and undergraduate sections curved separately, please don't expect a curve.

Academic honesty: Everything you turn in for this class must be your own work. On all work that you submit, I'll ask you to write and sign a pledge promising that you've not cheated. If you're caught cheating, you'll receive an FF grade for the class.

Of course, every part of this syllabus is subject to adjustment as the semester progresses. Please contact me as soon as possible if you're dissatisfied with the course policies, discussions, assignments, grading, etc.; I'll be happy to accommodate reasonable requests for modifications.