General Information
Class meetings: MW 5:00-6:15pm in ENG 003
Professor: Jay Ligatti (ligatti@cse.usf.edu)
Office location: ENB 333
Office hours: MW 3:30-5:00pm, and other times by appointment
TA: Donald Ray (dray3@cse.usf.edu)—office hours Thurs 2-4pm in ENB 327

Course objectives: Advanced topics in programming-language design and analysis. Pattern matching, normalization, continuations, monads, universally and existentially quantified types, type inference, subtyping, recursive types, objects, concurrency, Curry-Howard isomorphism, policy-specification languages, and special topics as time permits.

Course Materials
All readings will be available online or handed out in class. Please check the course website (http://www.cse.usf.edu/~ligatti/apl-15) regularly for announcements, assignments, an up-to-date schedule, and links to reading material. Grades will be posted on Canvas (http://my.usf.edu/).

Tentative **Schedule**

Week	Dates	Topics
1	01/05, 01/07	Introduction; Review
2	01/12, 01/14	Policy-specification languages; Pattern matching
3	01/21	Curry-Howard Isomorphism
4	01/26, 01/28	Subtyping (basics)
5	02/02, 02/04	Subtyping (recursive types)
6	02/09, 02/11	Normalization; Objects
7	02/16, 02/18	Objects; Monads
8	02/23, 02/25	Dynamic typing
		[Spring Break]
9	03/09, 03/11	Universally quantified types; Parametricity
10	03/16, 03/18	Existentially quantified types
11	03/23, 03/25	Type inference
12	03/30, 04/01	Concurrency; Continuations
13	04/06, 04/08	Concurrency
14	04/13, 04/15	Special topics
15	04/20, 04/22	Special topics

Grading and Attendance
There will be 7 small assignments throughout the semester, each having 2-3 problems. Students will turn in one problem (and a solution to that problem) for each assignment. Assignment problems (with a solution to each proposed problem) will be due on: 1/12, 1/26, 2/9, 2/23, 3/16, 3/30, and 4/13. Solutions to entire assignments will be due on: 1/21, 2/2, 2/16, 3/9, 3/23, 4/6, and 4/22. For full credit, every one of these 14 graded works must be turned in, in hardcopy, by the beginning of class (5pm) on the day it's due.

Final-grade breakdown: 35% Assignment problems (5% for each of the 7 assignments)
                              65% Assignment solutions (9 2/7% for each of the 7 assignments)
                             100% Total

Late submissions: Everything you need to turn in for this class may be submitted up to 2 days late with a 15% penalty. If it's impractical to submit something late in hardcopy, you can email it to the TA. (All emailed submissions will be considered "late".)

Attendance: I do not take attendance in class, but absences put you at risk for missing material. Students who will miss class for religious reasons must notify me of the date(s) in writing by the end of the first week of classes. Please do not sell notes from or record class meetings without my permission.

Grading system: For final letter grades, I'll use the standard scale of A (100-90), B (89-80), C (79-70), D (69-60), and F (59-0). I'll 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+).

Academic honesty: Everything you turn in for this class must be your own work. 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.