

## CS1110 Fall 2008 Preparing for Prelim 2:

**Tuesday, 21 March. 7:30–9:00PM, Uris Hall G01**  
**Review session, Sunday, 19 October, 1–3PM, Phillips**

This handout explains what you have to know for the second prelin.

**Material from the first prelin.** The second prelin will cover all the material that was on the first prelin. This material was discussed on the handout for the first prelin. Please look at that handout (you can get it from the course website if you lost it).

In addition, you need to know the following.

**1. Apparent and real classes.** Casting from a subclass to a superclass and back. See Sec. 4.2 of the text.

**2. The class hierarchy. Class Object. Function equals. Operator instanceof.** See Sec. 4.3.

**3. Methods executing method calls, pages 93-94. You need not know the later material on the “stack” of frames for a method call.**

- Be able to draw a frame for a method call, including knowing what goes in the scope box.
- Be able to write down the steps involved in executing a method call (see below)
- Be able to execute a method call by hand, drawing frames and objects as necessary.

Here are the steps involved in executing a method call:

1. Draw the frame (see page 93).
2. Assign the values of the arguments to the parameters (in the frame).
3. Execute the method body.
4. Erase the frame. If this is a function, use the value of the return-statement expression as the value of the function call.

**4. Recursion.** Be able to write recursive functions. See lecture notes for pages to read in the text and go over the lab assignment on recursion.

Note: Gries is out of town Sunday – Tuesday. He is giving the invited presentation at OOPSLA's 17th Educators' Symposium in Nashville on 20 October. OOPSLA is the ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, and Applications:

<http://www.oopsla.org/oopsla2008/program-overview/educators-symposium.html>

The prelin will be graded Wednesday evening, not Tuesday evening, and results should be on the course website well before midnight.