COSC 6490A 3.0 Concurrent Object Oriented Languages

Winter 2000

Brief overview

In this course we focus on the theory and practice of concurrent programming. Communication, synchronization and process creation are some of the key ingredients of this course. We study theoretical aspects of concurrent programming including concurrent calculi (like CCS, CSP and π-calculus) and bisimulation. Furthermore, we look at concurrent features of programming languages like Java, Eiffel, Ada, CML and Pict.

General information

Time: Tuesday and Friday, 17:30–19:00
Place: CCB 120
Instructor: Franck van Breugel
        Office: CCB 348
        Office hours: Tuesday and Friday, 17:00–17:30 and 19:00–19:30 or by appointment
        Email: franck@ariel.cs.yorku.ca

Reference material

Material will be made available to the students. Class notes will be crucial.

Evaluation

The performance of the students will be evaluated as a combination of a project (50%) and five assignments (50%). Students will not have the option of doing additional work to upgrade their mark.

Assignments: There will be five assignments. The assignments are given out on

1. January 14 (10%)

2. January 28 (10%)

3. February 11 (10%)

4. February 29 (10%)

5. March 14 (10%)

The assignments should be handed in within two weeks. No late assignments will be accepted. If a student cannot hand in the assignment in time for reasons beyond his/her control, the student has to bring a documented note to the instructor. If accepted, the weight of the other assignments will be prorated accordingly. The assignments can be found at the URL

    http://www.cs.yorku.ca/course/6490/

Project: Each student will choose a topic of his/her interest. The student will study in detail one research paper on the topic and will also read some related material. The student will implement some of the ideas of the paper in one of the languages studied in the course. In both an oral and a written presentation the student will

- present the main ideas of the project,

- discuss the strong and the weak points of the research paper,

- point out the links with the material presented in the course, and

- mention possible improvements, extensions, generalizations etc.

In the week of February 7–11, each student will hand in a progress report. The presentations will take place during the last lectures of the course. A draft version of the term paper should be ready by March 24. The final version is due on April 14.

Additional information can be found at the URL

http://www.cs.yorku.ca/course/6490/