BU CAS CS 511: Object-Oriented Software Principles
(Syllabus)

• Semester: Spring 2012
• Instructor: Hongwei Xi
• Lecture Times: MW 1:00-2:30PM
• Office Hours: MW: 5-6PM; W: 4-6PM; or by appointment
• Classroom: B25 @ 111 Cummington Street
• Reference Books:
  – Logic in Computer Science by Michael Huth and Mark Ryan:
    http://www.cs.bham.ac.uk/research/projects/lics/
  – Introduction to Programming in ATS by Hongwei Xi
• Homepage: http://www.cs.bu.edu/~hwxi/academic/courses/Spring12/CS511.html
• Overview:
  Object-Oriented Software Principles is a course that introduces students to some fundamental principles and techniques in object-oriented programming. However, there is always logic before principles and techniques. We plan to spend the first half of the course on logics: propositional logic, predicate logic, linear (propositional and predicate) logic, etc. In the second half of the course, we are to make use of some concrete and interesting examples to demonstrate a programming style that unifies formal specification (based on the logics presented in the first half) with implementation. In particular, we are to make essential use of linear types to model objects accurately as well as effectively.
• Class Schedule: Please find on the class homepage a week-by-week class.
• Grades: The final score is calculated using the following formula.

  final score = 40%·(homework) + 20%·(midterm) + 30%·(final) + 10%·(participation)

The final letter grade is calculated as follows.
• A: final score is 80% or above (A, A-)
• B: final score is 70% or above (B+, B, B-)
• C: final score is 60% or above (C+, C, C-)
• D: final score is 50% or above (D)
• **Academic Integrity**: We adhere strictly to the standard BU guidelines for academic integrity. For this course, it is perfectly acceptable for you to discuss the general concepts and principles behind an assignment with other students. However, it is not proper, without prior authorization of the instructor, to arrive at collective solutions. In such a case, each student is expected to develop, write up and hand in an individual solution and, in doing so, gain a sufficient understanding of the problem so as to be able to explain it adequately to the instructor. Under no circumstances should a student copy, partly or wholly, the completed solution of another student.