

## CS 603 Exam 2 Study Guide

- Be able to trace ML code or  $\mu$ Smalltalk code to determine its output. For ML, the output can include both values and inferred types.
- Be able to write ML functions using a functional language style.
- Be able to write  $\mu$ Smalltalk classes and methods using an object-oriented style.
- Be able to explain functional programming, higher-order functions, closures, and related concepts.
- Be able to explain object-oriented programming, inheritance, late method binding, polymorphism, and related concepts.
- Be able to design an object-oriented class inheritance hierarchy.
- Know the differences between Scheme and ML, and also know the differences between  $\mu$ Smalltalk and C++/Java.
- Be able to write code using either C or C++ or Java (your choice).