

# CMSI 182

## INTRODUCTION TO COMPUTER SCIENCE

Fall 2008

### Final Review Sheet

The final exam will take place on Thursday, December 11, at 11am. It will be open book, notes, and handouts, but not open computer. This guide should help you to prepare for it properly.

### Covered Material

The final covers all prior assigned readings in the Brookshear textbook: Chapters 0 to 4, the *Pseudocode* section of Chapter 5, and Chapter 11. Coverage also includes all handouts and code that have been distributed in support of this content. Make sure you have some working knowledge of pseudocode, JavaScript, XHTML, and CSS. Be familiar with the general artificial intelligence concepts of agents, stimuli, and responses, plus how these are implemented in Lego Mindstorms or Second Life's Linden Scripting Language (LSL).

### Covered Objectives

The questions on the final are meant to measure where we are in terms of the following course objectives based on L. Dee Fink's *taxonomy of significant learning*, as presented in the syllabus and on the first day of class:

- How well you remember and understand the central ideas discussed in the course
- How easily you recognize these concepts in your daily life, in current events, and in new products

### Sample Tasks and Questions

As before, these objectives inform the types of tasks and questions that are fair game for the final (in addition to those listed in the Midterm Review Sheet). Questions and tasks are meant to be *forward-looking*; that is, they represent the kinds of things that I hope you'll still know and/or be able to do loooooong after this course ends:

- Describe or explain some key concept regarding any of the major topics covered during the semester (i.e., data representation, data manipulation, operating systems, networks, algorithms, artificial intelligence)
- Describe, use, or devise a scheme for representing information as sequences of 1s and 0s
- Simulate computer activities within a hypothetical block of main memory
- Describe or identify the basic parts of a computer — what they are, what they do, how they are typically “measured”
- Reason about one or more scenarios having to do with the fetch-decode-execute life cycle
- Identify or differentiate tasks that are common to all operating systems
- Simulate or step through different scenarios for network communication
- Given a description of a particular agent (sensors, motors, physical components), provide a “stimulus-response” sequence for getting that agent to perform some task