

# **CMSI 182**

## **INTRODUCTION TO COMPUTER SCIENCE**

Fall 2006

### **Midterm Review Sheet**

The midterm will take place as scheduled, on October 5. 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 midterm covers the non-optional sections of Chapters 0 to 3 in the Brookshear textbook, as well as Section 4.1 in Chapter 4. Coverage also includes all handouts and sample code that have been distributed in support of this content.

### **Sample Tasks and Questions**

The assignments so far generally reflect the same types of tasks and questions that are fair game for the midterm. In addition, there will also be questions meant to determine your overall conceptual understanding of the ideas we've discussed thus far, such as:

- The big picture view of computer science — what it is about, what it studies, what its concerns are, and what its [current] tools are
- The fundamental principles and components behind today's computers: information representation as bits, basic bit manipulation operations, the stored-program model, the fetch-decode-execute cycle, main memory and mass storage
- The ways by which we can tell computers what to do: machine language, assembly language, high-level programming languages (particularly JavaScript)
- The history and purpose of operating systems — how they evolved, what their primary functions are, how they start up a computer
- Basic concepts behind computer networks — protocols, topologies

Questions concerning these topics may range from brief explanations of certain ideas to applications of these ideas to real-world problems and/or situations.