

# CSCI 1321 (Principles of Algorithm Design II), Spring 2008

## Review for Midterm Exam

### 1 Format of the exam

The exam will be in class March 11. You will have 75 minutes. You may use your textbook and any notes or papers you care to bring (with the exception of any materials from this course in previous years), but you may not use other books, each other's papers, or a calculator or computer, *except* that you may use a browser to look at material on the course Web site or at Sun's documentation of the Java library.

Questions will mostly be similar in format to the ones in quizzes and minute essays — some short-answer or multiple choice, some “what does this program do/print”, some “write a program to do this task” — but probably somewhat longer and/or more difficult.

### 2 Topics to review

You are responsible for all material covered in class or in the assigned reading. (See the schedule for a list of assigned reading.) You should review in particular the following topics.

- Basic Java syntax and semantics, including classes, `import`, the difference between primitive types and objects, generics, and exceptions.
- Inheritance and interfaces.
- Polymorphism.
- String processing — the Java `String` class and how to use it.
- Arrays in Java; sorting and searching of arrays.
- Linked lists, in general and in Java.
- Stacks and queues — as ADTs, implementation using arrays, implementation using linked lists.