

# Midterm Study Guide

---

**MCQ Exam (on paper), Tuesday, Sep 30, 6 - 7 pm**  
**Lecture room**

**Coding Exam, Thursday, Oct 2, 6 - 7:15 pm**  
**Building 15, 3rd floor, RF-Smart Lab, Room 3130**

- ☞ Feel free to bring blank papers for scratch work.
- ☞ Feel free to use non-electronic earplugs to avoid getting distracted.

## 1 On paper MCQ Exam, 20 questions, 50 points, 2.5 points each, 2 extra-grade questions

This is a multiple-choice questions in-person exam. Syllabus for this part: everything covered till Arrays and Linked Lists; slides 1-Introduction to 4-ArraysandLLs. Possible types of questions: output prediction, compilation-related question (does this code compile error-free? etc.), runtime derivations using Big-O, conceptual questions on Java basics. Make sure that you understand the concepts we discussed in the class. Refer to the slides when you prepare for the test. Although it is recommended that you go through all the slides carefully, the following concepts should be highly focused on. Make sure you can easily answer a quiz-like problem. *For more practice, practice exams are available on Canvas. Cheat sheets. You can bring at most five 8.5 × 11-sized cheat sheets (handwritten/typed out on both sides). Feel free to bring calculators.*

**Alert.** *Use the restroom before the exam starts. Use of restroom during the exam is highly discouraged.*

## 2 Coding, 50 points, 2 - 3 methods, 1 extra-grade method worth 10 points

- ☞ *It is strongly recommended that you visit the lab and try out the practice exam once.*
- ☞ If possible, arrive a few minutes early, login to a desktop and your Canvas (Microsoft Authentication app maybe needed).
- ☞ Feel free to bring blank papers for scratch work.
- ☞ Feel free to use earplugs to avoid getting distracted.
- ☞ Use the IntelliJ Community Edition (already installed).
- ☞ The coding exam project will be downloadable on Canvas, as an IntelliJ project ZIP. Download the ZIP to your desktop and extract it. Then, fire up IntelliJ and browse the project to start.
- ☞ Just like your homework projects, you will be asked to upload a specific file (not the whole project) to Canvas.
- ☞ Your canvas login will be required for downloading the exam and uploading the solution. Make sure you know how to log into Canvas.
- ☞ Check your Canvas submission carefully, and then logout from your desktop.

Exam 2 coding will be worth 50 points. You will be asked to complete 2-3 methods. Code outline and tests will be given to you, like HW problems. Like the HWs, you need to download the package, complete coding, test, and then upload your code to Canvas. Multiple submissions are allowed. Your latest submission will be graded. ***Cheat sheets.*** *You can bring at most five 8.5×11-sized cheat sheets (handwritten/typed out on both sides). Feel free to bring calculators..*

## **Syllabus. Linked-lists and basic understanding of Big-O notation.**

*Practice problems.* Pull from Git. The problem is on maintaining a doubly linked-list of student records. Complete the methods given to you. The method signatures should explain to you what to implement. Please try yourself before you look for solutions elsewhere.

***Alert.*** *Absolutely NO collaboration and/or copying from the internet during the exam will be allowed. This is a closed notes exam. LANSchool will be used to monitor the desktops in the room.*

***Alert.*** *Use the restroom before the exam starts. Use of restroom during the exam is highly discouraged.*