**Test 2 Review Lesson**

**Objectives**

* Review material covered in Moodle chapter 5, 6, 7, 8 and 9, to prepare for test 2
* The textbook chapters covered are chapter 5, 6, 7, 8, and 9.

**Schedule**

1, Test #2 is a paper and pencil close book test, and it has 100 points in total, covering textbook chap 5 to 9, and Appendix D (page 268 ~ 269). You also need to study the additional materials including chapter schedule WORD documents and zip files in Moodle folder 5 to 9, such as “chap5-schedule.docx”, “chap6-schedule.docx”, and “MemoryManagementForArray.zip”, etc. **A letter-size paper (8.5 by 11 inches) with hand-written notes on both sides is allowed in the test**. This notes paper must be a complete piece of paper, and it cannot be a partial paper with tearing-apart lines. This notes paper needs to be turned in together with your test paper, and you cannot bring the notes out of the testing center. If you turn in the notes paper with tearing-apart lines, the score will be 0 for this test. Computer, phone, calculator, book is NOT allowed.

2, make sure you have finished and understood homework 5 to 9, before you go for test 2. In test 2, there will be a coding question similar to **homework 7**. You are expected to code using OOP principles such as data abstraction, encapsulation, inheritance, polymorphism. There is no access to computer in the test, and you need to write down the code in the test paper using a pencil.

3, unzip file ***“TraceCodeExample.zip”*** and read document ***“HowToDoCodeTrace.docx***”. In this document, you need to work out a trace code example for file ***“TraceCodeExample.java***”. Another source code example included in this zip file is “***TwoDimArrayDemo.java***”, and you can learn how to navigate a two-dimensional array using embedded loops, and how to pass two-dimensional array as method parameters.

4, you DEFINITELY want to finish document “***Test2StudyGuide.docx***”, in order to prepare for test 2. The format of the test 2 is alike to the questions in this study guide. If you submit the answer of study guide to Moodle, you will have an opportunity of earning 10 bonus points. Let’s stay GREEN by submitting the electronic version ONLY, and DO NOT turn in any paper copy. The submitted study guide will be reviewed by the instructor, but NOT graded. If you have one question not answered in the study guide, one point will be taken off until all 10 bonus points are off.

5, Even if you decide NOT to submit the answers for the study guide, you are **REQUIRED** to take a look at all the questions in the study guide and be familiar with all the questions. Those questions in the study guide are the same type of questions that will show up in test 2. **It is very unlikely** that a student will achieve a passing grade without spending time on this study guide.

6, use Eclipse, work on coding exercises in section 4, 5, 6, and 7 addressing the inheritance and polymorphism principles of OOP from this link: <http://www.ntu.edu.sg/home/ehchua/programming/java/J3f_OOPExercises.html#show-toc>

For each exercise in these four sections, you need to create an Eclipse Java project, and then code all the required classes with inheritance relationships among them. Then code the application class that makes use of the inherited classes. Then run the application class and explain the output results.

Another link addressing inheritance and polymorphism is: <http://www.ntu.edu.sg/home/ehchua/programming/java/J3b_OOPInheritancePolymorphism.html> , and there are more explanations about inheritance, abstract class, interface and polymorphism in OOP in section 1, 2, 3, 4, 5, and 6 of this link.

7, **before** or **on the due day of test 2**, schedule yourself a time slot in Testing Center in the main building, and finish the close book test. In Moodle, click item ***Test 2 study guide drop box***, and you will see **the due day for test 2**. Before you can take any test in Testing Center, you have to show the staff your **OCCC student ID**. If you forget to bring or lost your student ID on the test day, the staff will NOT allow you to take the test, even after I make a call to them and try to verify your identity. Trust me, I learn this in a hard way. Driver license or passport does NOT count.

8, Plan about **two and a half hours (150 minutes)** to finish the test, or, you can plan more hours if you think 2.5 hours is not enough. Testing Center does not time you when you take a test, and you sure can work on the test for as many hours as you can, as long as the facility is open. However, bathroom break is not allowed during the test.

The open hours of Testing Center is in this link: <http://www.occc.edu/testing/test-center-hours.html>

You have to **start the test at least one hour before Testing Center is close**, otherwise, you will be denied to take the test.

9, finish the outcome assessment quiz in Moodle folder “Test 2 Review Lesson”. This quiz has the same time frame as test 2, and it is an open book quiz, and you can work on it at home or at school. This quiz has 10 questions with 2 points for each question, thus the total points is 20. The questions are either multiple choice or true/false question. The time limit is 30 minutes. To prepare for this quiz, you need to work on all questions in “Test2StudyGuide.docx”.