CSCI 121: Computer Science II

Syllabus – Spring 2015

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PPHAC 213

Office Hours: MWF 9-10

Thursday 3-5

or by appointment

Course Description

This course is a continuation of Computer Science I and introduces the Java programming language. We will focus on effective programming within the object-oriented paradigm, linear data structures, and the appropriate use of basic software development tools.

Course Goals

Upon completion of this course, a successful student will be able to:

- Design and implement small to mid-sized programs in Java using appropriate object-oriented design principles including polymorphism.

- Apply unit testing practices to demonstrate the correctness of a class.

- Select the appropriate linear data structure for a given task.

- Use common software development tools including IDEs, debuggers, and git.

- Express the running time of basic algorithms using $\mathcal{O}$, Θ, and Ω notation.

Required Text

The following text is required:

- *Head First Java, 2nd Edition* by Kathy Sierra and Bert Bates.

This book is different from traditional textbooks in many ways. Chapters have small exercises scattered throughout rather than all at the end. When reading assignments are given, you are expected to read the text carefully and work through the exercises along the way.

In addition to the required text, supplementary readings will be given periodically during the semester.

Assignments and Tests

Your grade will be calculated based on the following items:

- **Homework** – Homework problems will be assigned most class sessions and will be due the next class session. Each assignment will be some combination of small programming tasks, written exercises, and short answer questions. These assignments will help you explore topics more deeply and practice new language features.

  Each section of each homework will be given a score based on the following scale:

  3 – The solution is correct and in line with what the assignment asked for.

  2 – The solution is on the right track but contains minor errors or is not fully in line with what the assignment asked for.

  1 – An attempt was made, but the solution is incorrect or on the wrong track.

  0 – No attempt was made or there is no evidence that any thought was put into the solution.

  The grade for the entire assignment will be the average of the section scores rounded down to the tenths place.

  At the end of the semester, your average homework grade will translated to a letter grade as follows:

  ≥ 2.5 A
  ≥ 2 B
  ≥ 1.5 C
  ≥ 1 D
  < 1 F

- **Programming Projects** – Various programming projects will be assigned throughout the semester. These projects will be more involved than the homework assignments and you will be given more time to complete them. Use this time wisely! Issues will inevitably arise that you will not be able to resolve in time if you put off projects for the last minute. This happens no matter how much programming experience you have!

- **Labs** – The class is split into two lab sessions, one on Tuesday and one on Tursday. The Tuesday lab will be run by Professor Coleman. Both labs will meet in the CS lab, PPHAC 114. During labs you will be given a series of tasks to complete individually or with a partner, depending on the lab.

- **Tests** – There will be two tests in class throughout the semester. They are tentatively scheduled for Friday, February 27 and Monday, April 20. You may only re-schedule a test for college approved absences or a documented illness. In either case you must contact me *before* the beginning of the test.

- **Final Exam** – There will be a cumulative final exam given in class on Tuesday, May 5 at 1:30 p.m.

Grading

Grades will be weighted as follows:

20%	Homework
35%	Programming Projects
20%	Labs
20%	Tests
10%	Final

I will use the standard 90, 80, 70, 60 grading scale with pluses and minuses. I may relax these standards as necessary but I will not raise them.

Course Policies

- **Late Policy** – Generally I expect assignments to be turned in on time. I understand that this is not always possible, so in most cases I will accept assignments one class session late without penalty. However, if this becomes a pattern it will start to affect your grade. To keep up the pace of the class, assignments will not be accepted after they are one session late unless there are special circumstances.

- **Extensions** – In certain circumstances granting an extension to an assignments due date is perfectly reasonable. If you feel you need an extension, please contact me about it before the day it is due.

- **Absences** – You are expected to attend each class, but I understand that occasionally there will be exceptional circumstances. If you miss a class or know that you will miss an upcoming class, please contact me as soon as possible to explain the situation. You will still be expected to keep up with assignments and class content.

- **Academic Honesty** – You are encouraged to discuss and work with other students on homework assignments. However, the work you turn in should be your own. Help each other understand the concepts, but produce your own code and writing. See the Moravian College student handbook for more on the school-wide stance on academic honesty.

- **Disabilities** – Students who wish to request accommodations in this class for a disability should contact Ms. Elaine Mara, Assistant Director of Academic & Disability Support, located on the first floor of Monocacy Hall (extension 1401). Accommodations cannot be provided until authorization is received from the Academic & Disability Support office.

Communication

Feel free to talk to me about any issues that may arise. Email is generally the fastest way to get in touch with me if you have a quick question. You are most likely to find me in my office during office hours, but I will be around other times as well so dont be shy about stopping by.

Schedule and Other Materials

In the same shared Google Drive folder as this syllabus there is a Google spreadsheet with a tentative schedule of topics for the semester, including reading assignments. I will update this spreadsheet as needed as the class progresses.

Any other supplemental materials will also be placed in this folder.

The details of this syllabus are subject to change based on our progress through the material.