CPE 102: Fundamentals of Computer Science II
Course Syllabus – Spring 2015

Prerequisites/Co-requisites

- CPE101 with a grade of C- or better.
- MATH141 with a grade of C- or better

Catalog Description

CPE 102 Fundamentals of Computer Science II (4)

Basic design, implementation, testing, and documentation of object-oriented software. Introduction to classes, interfaces, inheritance, algorithms (sort, search, recursion), abstract data types, data structures (lists, stacks, queues), file I/O, and exceptions. 3 lectures, 1 laboratory.

Course Text

Big Java by Horstmann published by Wiley (Recommended)


Note: The Third Edition or newer versions of the same text will suffice.

Policies and Advisories

1. This course will have a common final either Monday, Tuesday, or Wednesday (probably Monday) of finals week from 7-10:00pm – no other finals will be given

2. There are no make-up exams or quizzes. You must take all exams and quizzes at their scheduled times and dates. If you know in advance that you will miss an exam talk to me in person before missing the exam. If you miss an exam due to some unforeseen event contact me as soon as possible by phone, email, in person or, better yet, all three ways to explain why. If your reason is compelling and documentable I may award you the lowest grade you earned for a similar exam (adjusted for the overall performance of the class) for the missed exam.

3. Many course announcements will be sent to your Cal Poly email account. You are responsible for checking your email regularly.

4. Plagiarism on programs will result in all students involved being failed from the course. This includes the student(s) who copied and student(s) who were copied from - you are responsible for the privacy of your own source code. In addition, a report of the incident will be reported to the appropriate university department which may result in being dismissed from the university (see Campus Administration Manual section 684).
5. All assignments must be submitted on or before the date and time specified in the assignment to receive credit.

6. All source code will be compiled, tested, and graded on the CSL servers (unix1, 2, 3 or 4) - be sure your solutions work correctly there before handing them in. Note that the CSL servers and workstations are using Java 7 but the most current release is Java 8 - if you develop on your own computer and you have Java 8 installed be sure you do not use any new Java 8 features in your solutions.

Lecture and Lab Attendance

Attendance is required on the days of quizzes and exams but is otherwise optional. If you choose not to attend lecture or lab you are responsible for obtaining copies of any handouts, lecture notes, and any important announcements from another student in the class. I will not repeat my lecture for you in my office hours! As you might suspect, your instructor likes to believe that regular attendance will help you perform better on your quizzes, exams, and programs. Your attendance and participation with questions, observations, and opinions will result in a better learning experience for you and for your peers!

Reading and Homework

You are expected to read the assigned chapters prior to class. Not all material in the reading will be covered in lecture or lab but you are still responsible for knowing it for quizzes and exams. Come to class prepared with any questions from the reading that you would like addressed.

There is no graded homework from the text. However, make sure you are familiar with the concepts in the chapter summaries and comfortable with the questions and exercises at the end of each assigned chapter. Don’t be surprised if you see material like this on your quizzes and exams.

Lab and Lab Exercises

Regular and frequent labs will be assigned. The three hours of scheduled lab time each week is the primary time your instructor will be available for questions and assistance – make wise use of this resource! You are expected to work on the lab exercises during your scheduled lab time plus as much additional time as necessary to complete them. The lab exercises are designed to familiarize you with some of the concepts necessary to complete your programs and to help you do well on exams. Lab exercises will be demoed to your instructor on the day they are due. Come to lab on the due day with your lab finished! I will give priority to students demoing over students that need help.

NOTE: You may collaborate on lab exercises.
Program Assignments

You will write several programs over the quarter that, together, will comprise 35% of your course grade. The programs will require analysis, design, implementation, testing, and documentation. Programs will first be graded on functionality, i.e. test cases passed. Programs will then be graded on the quality of the implementation – including coding style, efficiency, and documentation.

IMPORTANT: No late programs will be accepted

CAUTION: You may not collaborate on program assignments. You are required to develop your programs individually. You may not speak to others inside and outside of class about the project. Do not even look at another student’s program code or allow another student to see yours. Any program, in whole or part, which is suspected of being the work of more than one student, will be considered plagiarism.

Programs will be compared using software that can reliably detect similarities in source code. See the Policies and Advisories section above regarding the penalties for plagiarism.

Quizzes and Exams

There will be one lecture midterm and one common lecture final. The midterm and final exams will be cumulative and comprehensive and will cover material covered in lecture, your text, as well as programming skills of analysis, design, and implementation used in your labs and programs.

IMPORTANT:

• No makeup exams will be given.
• The lecture final is a common final and will be held on Monday, Tuesday, or Wednesday from 7-10pm of finals week.

NOTE (Unless otherwise specified):

• The lecture midterm and final are closed-note and closed-book.
Grading

The following table presents the percentage value of all graded items based on a course total of 100%:

<table>
<thead>
<tr>
<th>Graded Item</th>
<th>Value (Each)</th>
<th>Value (Total)</th>
<th>Length (Each)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five programs</td>
<td>~7%</td>
<td>34%</td>
<td>Variable</td>
</tr>
<tr>
<td>15 labs</td>
<td>0.66%</td>
<td>10%</td>
<td>Variable</td>
</tr>
<tr>
<td>One lecture midterm</td>
<td>19%</td>
<td>19%</td>
<td>50 minutes</td>
</tr>
<tr>
<td>One lecture final</td>
<td>34%</td>
<td>34%</td>
<td>170 minutes</td>
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<tr>
<td>Participation</td>
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<td>3%</td>
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