

CPE 101: Fundamentals of Computer Science I

Course Syllabus – Winter 2008

<subject to change>

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Prerequisites

Math 118 (or equivalent) with a grade of C- or better.
Basic computer literacy

Course Objectives

Learn the basic principles of algorithmic problem solving and procedural abstraction.
Exposure to the software development process: top-down design, incremental development, testing, and documentation.
Learn the syntax and semantics of a modern programming language (C).
To be successfully prepared for CPE/CSC 102.
Enjoy solving puzzles = enjoy computer science.

Required Text(s)

Problem Solving and Program Design in C by J. Hanly and E. Koffman (4th Edition)

Recommended Text(s)

The C Programming Language, Second Edition by Kernighan and Ritchie, Prentice Hall, Inc.,

Policies and Advisories

- 1) This course will have a common final scheduled for either Tuesday or Wednesday from 7-10:00pm of finals week – **no other finals will be given** – if you can't make this common final time don't take this class!
- 2) The College of Engineering requires **proof** of unusual circumstances **to withdraw** from a course **after the eighth day** of the quarter.
- 3) Projects **must** be submitted on or before the date and time specified in the assignment to receive credit. Late projects will not be accepted. However, students each have **two free days** which may be used during the quarter for any of the programming assignments.
- 4) There are **no** makeup exams or quizzes except in documented and extreme emergencies.
- 5) A course grade of **incomplete** is given only for reasons acceptable to the university.

- 6) **Plagiarism** on projects will result in all involved students (student(s) who copied and student(s) who were copied from) being **failed** from the course. In addition, a report of the incident will be reported to the university's Judicial Affairs department, which may result in being **dismissed** from the university. Please note that all programs will be checked automatically for plagiarism.

Lecture and Lab Attendance

Attendance and participation in the course is mandatory. Participation includes responding to questions in class, lab or office hours and making observations or discussing course material in class, lab or office hours.

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. 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 and collected each week and, together, will comprise 15% of your course grade. 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 projects and to help you do well on quizzes and exams. You may work on your projects in lab **after** completing all currently assigned labs.

IMPORTANT: No late labs will be accepted.

NOTE: You may collaborate on lab certain exercises (as specified).

Projects

There will be six projects over the quarter that, together, comprise 29% of your course grade. Projects will consist of analysis, design, documentation, and program development and will be graded based on their functionality as well as the quality of the implementation – including coding style, efficiency, and documentation.

IMPORTANT: No late projects will be accepted.

CAUTION: You are required to complete your projects **individually (unless clearly specified in the assignment!)**. You may discuss general concepts with others inside and outside of class, including tutors, but you **must** do the specific work on the projects on your own. **Do not even look** at another student's project code or allow another student to see yours. Any project, in whole or part, which is suspected of being the work of more than one student, will be considered **plagiarism**. Projects will be compared using software that can reliably detect similarities among programs. See the Policies and Advisories section above regarding the penalties for plagiarism.

Quizzes and Exams

There will be several *separate* lecture and lab quizzes, 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 projects. Lab quizzes will focus on programming skills and knowledge acquired primarily, though not exclusively, from labs and projects.

IMPORTANT: No makeup quizzes or exams will be given. The lecture final is a common final and will be held on Tuesday or Wednesday from 7-10PM of finals week.

NOTE (Unless otherwise specified):

The lecture quizzes, midterm, and final are closed-note and closed-book.
Lab quizzes are closed-note, closed-source, closed-web, but open-book.

Grading

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

| Graded Item | Each | Total | Length (Each) |
|---------------------|------|-------|--------------------------|
| Participation | N/A | 3% | N/A |
| Six projects | 2-5% | 29% | N/A |
| Nine weekly labs | 1-2% | 15% | N/A |
| Four lab quizzes | 4% | 16% | ~50 minutes |
| Two lecture quizzes | 1% | 2% | 15-50 minutes |
| One lecture midterm | N/A | 10% | ~50 minutes (Cumulative) |
| One lecture final | N/A | 25% | 170 minutes (Cumulative) |

Honesty

The following **honor** statement will be expected for all programs, quizzes, exams and class work:

I _____ have not taken unfair advantage of anyone in the Cal Poly computer science community. All of the work I am submitting for this assignment is my own.

Signed,
