1 Introduction

This class is CSE 30: Computer Organization and Systems Programming. The class meets on Tuesdays and Thursdays from 12:45am to 2:05pm at Center Hall 214, with a discussion section from 6:15pm to 7:05pm on Monday and Wednesdays at HSS 1330 and 2250 respectively.

2 Instructors and Office Hours

The instructor for this class is Dr. Bennet Yee. I just go by "Bennet" or "bsy". My official office hours are Tuesdays and Thursdays, 3:00pm to 4:00pm in AP&M 5141, but you should feel free to drop by at other times. If you come by outside of office hours without first making an appointment, I may ask you to come back later if I am busy, but I will otherwise make an effort to accomodate you. Run the command "`finger bsy@play`" to look at my idle time and see if I'm around. You may also email questions to me at `<cs30f>` or `bsy@cs`.

The TA for this course is Chuong Le, `<cs30f1>`. Chuong's office hours are Mondays 5pm-6pm. They are held in AP&M 3337A. There are also at least three tutors for the course. The tutors will available to answer questions in the lab at various times. Check the class web page for their hours.

3 Class Contents

In this class, you will learn basic computer orgnaization, assembly language and some C programming, basic systems programming concepts, how operating systems control the hardware and allocate resources for the user-level programs, and gain some insight on how higher level programming languages are implemented. *Some* of the material will necessarily be presented as a high level overview; you will learn more details in other classes later (e.g., Operating Systems, Compilers, Architecture, etc). These include: exceptions, pipelining, data/control hazards, memory hierarchies, virtual memory, user memory management using stacks/heaps/garbage collection, etc.

This class will give you a better understanding of how the various abstraction layers are actually implemented. This understanding will enable you to design/implement better interfaces, correctly write code that uses these interfaces, write code that will run faster, and understand why computers (and their software) are designed they way they are.

4 Textbook, Handouts, and Class Web Pages

The text for this course is *Computer Organization & Design: The Hardware / Software Interface* by Patterson and Hennessy. An optional reference book is *MIPS RISC Architecture* by Kane and Heinrich. You are not required to attend lecture or discussion section — no attendance will be taken — but you are responsible for **all** of the material covered, which will include significant amounts of material that is not in the texts.

In addition to any class handouts, you are required to read the class Web page at

`http://www-cse.ucsd.edu/classes/fa98/cse30/`

Whenever possible, I will try to make only "virtual" handouts via the class web pages to avoid killing trees; these will include short summaries of the lectures — you should take your own notes, since the summaries will appear only *after* the lectures and they may omit significant details. You should check the class web pages for new virtual class handouts regularly.

5 Grading

This course will **not** be graded on a curve. If all of you learn the material, I will give everybody "A"s; conversely, if none of you learn the material, I will give everybody "F"s. Your grade will be computed from your marks in assignments, midterm, and final as follows:

Homework	30%
Midterm	30%
Final	40%

The assignments will not be all weighed equally; harder ones will be worth slightly more, easier ones slightly less. At the end of the quarter, I will tally up the scores and look for "natural breaks" in the distribution near where the cut-offs should be.

You are encouraged to ask questions during lecture / discussion. There will be approximately 6 laboratory assignments. Homework hand-in will be done electronically by the `turnin` program. If you are unfamiliar with it, type in `help instruct` at the command prompt. Late turnin will be permitted, but you will lose 10% of the assignment's grade for each day it is late (e.g., if your work would have received 80 points out of 100 possible if it were not late, it would receive 72 points if it was 1 day late, and 64.8 points if it was 2 days late); an assignment may be late by **at most 2 days**. This means that if I asked for an assignment to be turned in prior to class on Tuesday, I can discuss it during lecture on Thursday, since I will not accept any more late assignments by the time of the lecture.

5.1 Team Problems

Unless *explicitly* stated, all of the work must be done alone. Later in the course, some of the laboratory work may specify that you do it in a team. I'll specify team size etc if/when we have team projects. If you are unsure whether an assignment is a group project or not, **ask me**. The default assumption should be that all work is to be done alone.

5.2 Cheating

The following is the class cheating policy. While almost all of you can be trusted to behave honestly and honorably, we need to be clear that cheating is unacceptable behavior for those few that may be in doubt. Not only is it dishonorable and unfair to everybody else who work honestly for their grades, there will be serious repercussions.

If two or more students handed in assignments are determined to be copied from each other when I did not ask you to collaborate — or any other form of cheating occurs (e.g., inappropriately obtaining outside help on an assignment) — *all* of the students involved may receive an F grade for the *entire course* and be reported to your college Dean for administrative processing; committing acts that violate Student Conduct policies that result in course disruption are cause for suspension or dismissal from UCSD. **It is your responsibility to prevent others from copying your work.** See the General Catalog's section on UCSD Policy on Integrity of Scholarship for more details.

Because your are responsible for not letting others see your work, you should keep your account private. This means you should chose a good password and never share it with another person. Your files should not be readable to other students, and when you print things out, pick them up promptly. The file permission defaults have been set up for you by ACS and are okay — don't change them! (Your directories should be protected against "other" access; the `cse30f` group access is for instructor/TA/graders' access, and you should leave that alone.)