DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

6.033—Computer System Engineering Handout 1—February 6, 1996

ADMINISTRIVIA

1. On-line information and handouts

Information about 6.033 is available online on the Web at the URL http://web.mit.edu/6.033/www/home.html.[1]

6.033 will attempt to avoid paper and publish all handouts electronically. Handouts will be available on the Web, as well as in the 6.033 locker on Athena. On the Web, each handout will be provided in a form that can be read by any browser, as well as in PostScript. On Athena, type "add 6.033; cd /mit/6.033/handouts".

We expect you to check the 6.033 home page regularly, since all assignments and late-breaking 6.033 news will be disseminated through it. The 6.033 home page has more information on what you can expect on the Web, how often you should check, etc.

2. Staff

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1. We will also discuss the Web as a topic (see, for example, reading 22 on the reading list).

3. Lectures

Lectures will be held on Monday and Wednesday from 2 to 3pm in 34-101 (*not* 54-100).

The registrar's schedule shows additional lectures on Friday from 2 to 3 p.m. That isn't exactly what we have planned; we reserved the Friday hours for special events. The most notable special events are three one-hour **QUIZZES,** scheduled for March 8, April 19, and May 15. Other special events are lectures by staff of the M.I.T. Writing Program, on February 9 and March 1. Sometimes we discover that an interesting visitor can be cajoled into giving us a guest lecture, in which case we will schedule it on Friday. And, finally, if winter gets any worse and we encounter a week of snowed-out lectures, we may try to get back on schedule by using the Friday lecture hour. The message here is: reserve that block in your calendar, even though it isn't going to be used every week; make sure the reservation is clearly marked for the three quiz dates.

The handout "6.033 At a Glance, Spring Term, 1996" summarizes all these events and more.

4. Recitation sections

The recitation sections are currently scheduled as follows, but don't be surprised if some last-minute changes are needed. Section numbers are in parentheses.

(#1)	TR10	34-303	Corbató	(#6)	TR12	34-303	Wetherall
(#11)	TR10	36-144	Shrira	(#9)	TR1	34-302	Ganger
(#7)	TR11	34-302	Corbató	(#8)	TR1	34-303	Saltzer
(#2)	TR11	34-303	Wetherall	(#3)	TR1	26-302	Agarwal
(#5)	TR11	26-310	Ganger	(#10)	TR2	34-303	Saltzer
(#12)	TR11	13-1143	Shrira	(#4)	TR2	26-302	Agarwal

Go to the section you were assigned by the registrar, or the one that fits with the rest of your schedule. We will figure out where you are, and also whether or not we need to ask you to attend a different section to get things balanced better. However, try and pick a section with an instructor you have not had before. Note that recitations in 6.033 are deliberately smaller than average, because they consist of free-form discussion.

5. Textbooks and readings

There are four things you need to have in order to accomplish the reading assignments in 6.033.

1. Tanenbaum, Andrew S. *Modern Operating Systems,* Prentice-Hall, 1992. (ISBN 0-13-588187-0)
2. Brooks, Frederick P. *The Mythical Man-Month***,** Addison-Wesley, 1975. (ISBN 0-201-00650-2, paperback)
   These are available at the Coop and at Quantum Books.

3. Ward, Stephen, and Halstead, Robert. *Computation Structures*, McGraw-Hill, 1989.
   This is the text you used in 6.004. If you have already sold your copy to someone else, don't panic. We will be assigning just one chapter from it, and if necessary you should be able to borrow one from a friend or find it in a library to get through that assignment.

4. *Readings for 6.033,* a packet of stuff available from the EECS instrument room.
   Follow this procedure to get the packet: Pick up a coupon sheet (copies handed out at the first recitation and available from the course secretary), fill it in, and take it together with $18 to the cashier's office, 10-180. They will give you a receipt, which you can take to room 38-501 to exchange for the packet. We may make a second packet later in the term, so keep track of the coupon you find in the first one. It entitles you to an update packet if we issue one.

6. Assignments and Grades

Grades in 6.033 will be based on the results of three quizzes, about a dozen weekly one-page written reports, at least two written case studies, and your participation in recitation. There will not be a final examination.

Each week, you will be asked to address a question pertaining to one of the reading assignments. Your response should be a one-page written essay. Our emphasis in evaluating these essays is on essential issues, not technical details. Your ability to explain clearly the significance of the paper (in the context of the question) is what matters.

The case studies are longer, 8-10 page papers in which you engage in a design exercise or consider a question in more depth than the weekly reading reports allow. Case studies will be handed out about two weeks before they are due. The first case study will be done individually; the second case study may be done in teams.

Since an important part of 6.033 is discussion of current literature, your recitation participation will influence your grade *significantly* -- so significantly that we hesitate to try to assign weights to the individual components such as quizzes and case studies. Everything is important; your recitation instructor will assign your final grade based on her personal assessment of what you got out of the course, integrating all the methods of evaluation she can think of.

7. The 6.033 Lab: Hacking Real Systems

This year, 6.033 is offering an additional elective 6-unit lab. The lab is designed to provide students with hands-on experience with concepts taught in 6.033. The lab consists of two programming projects: the implementation of a reliable network protocol and the implementation of a secure network file system. These projects will be executed on top of UNIX using Athena machines. It is assumed you are fluent with the C programming language and you have a working knowledge of UNIX tools. This term is the first time the lab will be offered, and will therefore have limited enrollment and run in pilot mode.

If you like to understand computer systems in detail, like to acquire more practical knowledge in building computer systems, have knowledge of C and UNIX, have time to earn another 6 credits, have Tuesdays and Thursdays free from 1 to 2pm, and are not afraid of being a guinea pig for a new lab, you should enroll in the lab. If you are taking 6.033 only because of its reading and writing components, you should not enroll. You do not need to take the lab to do well in 6.033.

Sign up for the lab during the first recitation on the first day of classes. The subject number for the lab will be 6.917, but please wait before registering for this subject, particularly because we may need to limit enrollment. For more information check out the "6.033 Lab Overview" handout. Note that the lab will not satisfy the Institute or department lab requirements.

8. Collaboration

Our policy is simple, based on professional standards: On quizzes you should *not* collaborate. On all other assignments you are welcome to work with anyone else on ideas and understanding, but your writing should be your own *and* you should carefully acknowledge all contributions of ideas by others, whether from classmates or from papers you have read.

9. The Writing Requirement, Phase II

Since 6.033 is one of the few Course VI subjects that asks students to hand in assignments containing complete sentences in the English language, the M.I.T. Writing Program takes a special interest. This interest will take two forms this term:

1. We will forward a copy of your first weekly writing assignment to the Writing Program for evaluation and comment. (These comments usually come back about three weeks later.) In addition, if you ask us to, we will forward to the Writing Program any case study on which your 6.033 grade is a B or better and which contains at least ten pages clearly identified as having been written by you. (The second case study may be a team effort, in which case you may have to volunteer to be the team scribe if you want to take advantage of this option.) Assuming the evaluator in the Writing Program likes your stuff, you will receive credit for Phase II of the M.I.T. writing requirement.

2. The staff of the Writing Program will offer up to four sections of a 6.033 writing practicum. Check out http://web.mit.edu/uaa/www/writing/practicum/6033/6033top.html for more info.