E7 is an introductory course on computer programming for lower-division students in science and engineering. The principal goal of the course is to introduce basic computer programming concepts and apply them to computer-based problem-solving methods. The course stresses hands-on computer programming using MATLAB, a powerful high-level programming environment.

Teaching staff

Professor Andrew Packard (apackard@berkeley.edu), 5116 Etcheverry, **office hours: Tuesday 3:00 - 4:30 pm, Wednesday 2:30 - 3:30 pm, and Thursday 9:00 - 10:00 am.**

Professor Roberto Horowitz (horowitz@berkeley.edu), 5138 Etcheverry, **office hours: Tuesdays 4:00 - 5:30 pm and Thursday 2:30 - 4:00 pm.**

Head GSI: Chen-Yu Chan (chanchenyu@berkeley.edu), 136 Hesse, **office hours: Monday 10:00 - 11:00 am and Tuesday 10:00 - 11:00 am.**

GSI Staff: Nick Errico, Nathaniel Butler, Alyssa Novelia, Naoki Wada, Brett Kelly, Matthew Wright, Ben Dokko, and Te Tang.

Administrative and grading matters pertaining to the course should be addressed to the Head GSI.

Course format

E7 consists of classroom lectures, online quizzes, computer laboratory sections, and classroom discussions. Faculty instructors deliver lectures and discussions, while graduate student instructors (GSIs) supervise laboratory sections.

Lectures begin on **September 4th** and are held Mondays and Wednesdays in **4 LeConte**. The lecture time for Section 1 is from 12 noon to 1 pm, while the lecture time for Section 2 is from 1 to 2 pm. Students registered in a section have seating priority during its corresponding lecture.

Discussions begin on **Friday, August 30th**, and will be held in **4 LeConte** during two times: 12 noon to 1 pm and 1 to 2 pm. During discussions we will cover additional exercises, present and discuss the upcoming homework assignments, and answer questions. The first discussion session (Friday, August 30) will introduce the logistics of the course. Students registered in a section have seating priority during its corresponding discussion.

Laboratory sections begin **Wednesday, September 4th**. The laboratory sections are at the following times and locations:

11 TuTh 8-10 1109 Etcheverry

12 TuTh 10-12 1109 Etcheverry

13 TuTh 12-2 1109 Etcheverry

14 TuTh 2-4 1109 Etcheverry

15 TuTh 4-6 1109 Etcheverry

16 MW 8-10 1109 Etcheverry

17 MW 10-12 1109 Etcheverry

18 MW 2-4 1109 Etcheverry

19 MW 4-6 1109 Etcheverry

20 TuTh 10-12 212 Wheeler

IMPORTANT: To register for E7, you must be enrolled in a laboratory section. Also, you may only attend the laboratory section in which you are officially enrolled.

The popular course discussion forum Piazza is integrated into bCourses (see the left sidebar). The instruction team will monitor and contribute to this forum, and you are encouraged to use it to seek help from the instructors and your peers. You are also encouraged to contribute not only questions, but also answers to questions that you are comfortable with.

Laboratory Assignments

There will be approximately 12 laboratory assignments (generally due every week). All assignments must be turned in no later than 12:00 noon on the Friday of the week they are due. Here is some important information:

(i) The general procedure for working on and submitting assignments will be explained on **Friday, September 6th** in Discussion. Weekly laboratory assignments will be available for download in the *Modules* section (generally on Thursdays) as a PDF file. You will also download an auto-grader, which you will run after you have completed part or all of your assignment. The auto-grader will grade your work and will generate another file that contains your score. You will have to upload this by the assignment due date. You can upload this file multiple times until the deadline and only your last uploaded file will be preserved.

(ii) Late assignments will not be accepted under any circumstances, so make sure to upload your assignments on time. Leave a few minutes of extra time to avoid any problems caused by heavy internet traffic.

(iii) It is acceptable to discuss with your classmates the material contained in the assignments. However, we require that you complete all assignments on your own. Copying someone else's work or allowing your work to be copied constitutes cheating, and will result in at least zero credit for the entire assignment, as well as possible additional disciplinary action (see the Academic Honesty section below).

(iv) In addition to the scheduled labs sections, the lab in 1109 Etcheverry is open:

- Monday through Thursday 6 - 8 pm

- Fridays 8 am - 12 noon and 2 - 5 pm.

There will be no GSI's present during these open lab times.

Online Quizzes

You will be required to take either weekly or bi-weekly online quizzes at bCourses. **The first quizzes will be released following the lecture on Sept. 4**. You will be able to take these online quizzes until Monday at 8:00am, unless otherwise specified. You will be able to take each quiz as many times as you like and only your best score will be recorded. Hence there is no reason to get less than 100% on all quizzes.

 Midterms and Final Examinations

There will be two 50-minute midterm examinations during the Friday discussion times. The dates for the midterms are **October 11** and **November 15**. The midterm examinations will take place during the discussion sections (i.e. 12 noon - 1 pm for Section 1 and 1 - 2 pm for Section 2). For the midterms you must attend the discussion section for which you are registered.

The 3-hour final examination is on **Wednesday, December 18, 7 - 10 pm**. You will be required to provide ID before entering the examination rooms.

Please note that the final exam group for both E7 sections is Exam group 12: WEDNESDAY, DECEMBER 18, 2012, 7 - 10 pm. There will be an alternate final exam on Wednesday 12/18 from 3 - 6 pm ****ONLY**** for students enrolled in Section 1 (12:00 - 1:00 pm) that are also enrolled in another course in Exam group 12 (this includes all courses that are taught MWF at 1 pm and MTWTF 1 pm). Proof of enrollment will be required to take this alternate exam.

Course Text and Requirements

In E7, you are going to learn how to program in Matlab. The E7 Computer Laboratory (1109 Etcheverry) provides computers with Matlab. We highly recommend (but do not require) that you obtain the latest Student Version of Matlab, which can be purchased from Mathworks at the following link, Student Version of MATLAB. The Matlab software comes with extensive built-in help, and tutorials can be found on the Mathworks website. Among other things this website hosts documentation, including manuals that you can download.

There is no required textbook for this course, but the recommended text is **Applied Numerical Methods with Matlab (customized for this class), S. Chapra, $66.00,** available at the bookstore**. Matlab has ample built-in help and tutorials; the same help and tutorials can be also found on the Mathwork web site, along with detailed manuals that you can download for free.

Academic Honesty

It is acceptable to discuss with your classmates the material contained in the quizzes and laboratory assignments. *However, we require that your submissions represent your own work.* Copying someone else's work or allowing your work to be copied constitutes cheating, and will result in zero credit for the entire assignment. In addition, Berkeley students who are found to cheat in assignments or exams will be referred to Student Judicial Affairs. For details, see the website of the Berkeley Center for Student Conduct.

Honor Code
The student community at UC Berkeley has adopted the following Honor Code: "As a member of the UC

Berkeley community, I act with honesty, integrity, and respect for others." Your E7 instructors join you in pledging to adhere to this code.

Grades and Grading

The course grade will be assigned based on the following percentages:

- 30%   Homework Assignments
- 5%   Quizzes
- 15%   Midterm 1
- 15%   Midterm 2
- 35%   Final

If you find any discrepancies between the issued grades and the grades posted on bCourses, please bring them to the attention of the Head GSI immediately.