Welcome message

Welcome to the E7 course. Please attend/view the first lecture that will be given on Wednesday, January 20, 9:10-10:00 am PST. (The link to the Zoom webinar will be provided via Announcement).

Brief introduction to course logistics

The course consists of

- asynchronously given lecture material
- "in-person" Zoom Discussions
- "in-person" Zoom labs
- · weekly quizzes and homework assignments
- final examination

For further details please see the material listed below and attend/view the first lecture that will be given on Wednesday, January 20, 9:10-10:00 am PST.

Course objectives

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 Michael Frenklach <u>frenklach@berkeley.edu (mailto:frenklach@berkeley.edu)</u> (Office Hours: M, Th 2 - 3:30 pm PST)
- Professor Panos Papadopoulos (in videos)
- Professor Andrew Packard (in videos)

GSI staff

 Abdullah Kuraan (Head GSI) - <u>abdullah_kuraan@berkeley.edu</u> (mailto:abdullah_kuraan@berkeley.edu) Introduction to Computer Programming for Scientists and Engineers (Spring 2021)

- Shuangjiu Fu shuangjiu@berkeley.edu (mailto:shuangjiu@berkeley.edu)
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- Bike Zhang bikezhang@berkeley.edu (mailto:bikezhang@berkeley.edu)

Course format

This offering of E7 is online, with content delivered here on the bCourses (Canvas) platform.

E7 consists of:

- videotaped lectures and online quizzes which you may view asynchronously (some lectures, like the Introductory one, will be given synchronous and be recorded for those who cannot attend)
- programming assignments
- online weekly Discussion sessions, focused on past-week material review and next-week assignment introduction (this will be hosted live on Zoom, held on Fridays 9-10 am in lieu of the synchronous Friday Discussion sessions listed in the course description and will be recorded for those who cannot attend; the links to the Zoom webinars will be provided via Announcements.
- online supervised <u>Computer Laboratory Sections.</u> (<u>https://bcourses.berkeley.edu/courses/1501602/modules/2231734)</u>
 - The lab sections will be held in Zoom. Zoom meeting ids to the lab sections are located in the "Zoom Links" module. It will appear as the very first module in the list of modules, which you can access from the navigation menu to the left.
 - An announcement will be made giving information on how to register for lab sessions in the first week of class
- the Piazza discussion forum
- a Zoom-proctored final examination

The course material is organized into Modules, and the weekly covering of the Modules will be indicated in the <u>Syllabus (https://bcourses.berkeley.edu/courses/1501602/assignments/syllabus)</u>.

You are expected to watch all videos in each of the modules in sequence at a time that is convenient for you, but within the *weekly* timeframe specified in the course syllabus. Each module is composed of about an hour of instruction video featuring the professors along with other supporting lecture material (like PowerPoint viewgraphs or Matlab sessions), interspersed with quizzes that reinforce the module's content. Attempting every quiz is a requirement of progressing through the module. **You may retake any quiz at any time throughout the duration of the course to improve your score.** Each module culminates in a programming assignment that you will complete and upload to bCourses.

The modules will be become available in time of their assignment.

Programming assignments will generally be due to Sundays 11:59 pm PST, starting Sunday, January 31. Late submissions will not be accepted for credit under any circumstances.

The synchronous computer laboratory session will be supervised by one of the GSIs, and you are encouraged to attend them to successfully complete each assignment. The purpose of these sessions is to provide a forum for you to ask questions and get clarification about the module assignments in a small-group setting. The sessions will also be hosted on Zoom.

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. Please be an active participant at Piazza.

The course will begin on Wednesday, January 20 and end on Friday, May 7. The labs will begin the week of January 25. The Final exam will take place on Monday, May 10, 7-10 pm PST. This is a proctored exam for which you will be asked to be logged into your Zoom account with the video option enabled.

Course Website

Congratulations, you found it! All the asynchronous course content is available by clicking on "Modules" in the left NavBar. Bookmark <u>the module list</u> (<u>(https://bcourses.berkeley.edu/courses/1501602/modules)</u> if you have trouble remembering how to get there.

Course Text and Requirements

There is no textbook requirement for the course. However, you do need to own (or have access to) the 2020b release of MATLAB. Older releases will not be allowed because of potential incompatibilities. UC Berkeley student should be able to obtain the 2020b MATLAB license free of charge:

- create your own Mathworks account register), if you do not have one already, and
- download your personal copy of Matlab 2 (https://software.berkeley.edu/matlab)

Alternatively, you may obtain the **<u>Student Version of MATLAB</u>**

<u>(http://www.mathworks.com/academia/student_version/)</u>. The MATLAB software comes with extensive built-in help, and tutorials can be found on the <u>Mathworks website (http://www.mathworks.com/)</u>. Among other things that website hosts documentation, including manuals that you can download.

An internet connection is required for successful participation in this course. It is also recommended that you use a headset for better audio quality when interacting with the instructors in Zoom.

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 <u>at (http://sa.berkeley.edu/conduct)</u>.

We are all responsible for creating a learning environment that is welcoming, inclusive, equitable, and respectful. Please feel free to contact the Instructor (<u>Michael Frenklach</u> (<u>mailto:frenklach@berkeley.edu</u>)) with any concerns. You may also seek assistance from <u>campus</u> resources 2 (<u>https://evcp.berkeley.edu/programs-resources/academic-accommodations-hub</u>).

Grades and Grading

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

- 20% quizzes
- 40% module assignments
- 40% final exam

You will need to score at least 50% on the in-person exam to get a passing grade in the course, regardless of your performance on quizzes or module assignments.

We have a strict no late submission policy - you will receive a zero for all late submissions. At the end of the semester two of your lowest assignment scores will be dropped. (Lowest quiz scores will NOT be dropped.)

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