1 Overview

CS61B is often said to be the most intense of the Computer Science 61 series – a study of data structures, data types, interfaces, algorithms, and their design and implementation. We will be using the Java programming language, though learning Java will not be a focus of this course. However, since you are not expected to have learned Java prior to 61B, the first few lectures, readings, and assignments aim to familiarize you with the language and its workings.

Throughout the summer we will post assignments, announcements, lecture notes, and other information to the course webpage, http://inst.eecs.berkeley.edu/~cs61b – please check it frequently. Also available on the webpage are class schedules, office hours, the course syllabus, reading assignments, and links to reference documentation. In addition to the course webpage, the newsgroup ucb.class.cs61b is available – please post your questions and comments to it. We will read the newsgroup to answer your questions, and encourage you to respond to other students’ postings as well. If you want to contact us privately, send email to cs61b@cory.eecs.berkeley.edu. Of course, the easiest way of contacting us is in person, either during office hours or after class.

Instructor:
Barath Raghavan
Office Hours: M-Th 1:00-3:30, 329 Soda Hall
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Teaching Assistants:
Steve Sinha (cs61b-ta@cory.eecs.berkeley.edu)
John Sampson (cs61b-tb@cory.eecs.berkeley.edu)
Winston Liaw (cs61b-tc@cory.eecs.berkeley.edu)
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2 Schedule

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>M-Th</td>
<td>11:00-12:30</td>
<td>2050 VLSB</td>
<td>Barath Raghavan</td>
</tr>
<tr>
<td>Lab 101</td>
<td>MW</td>
<td>12:30-2:30</td>
<td>275 Soda</td>
<td>Winston Liaw</td>
</tr>
<tr>
<td>Lab 102</td>
<td>MW</td>
<td>2:30-4:30</td>
<td>275 Soda</td>
<td>Steve Sinha</td>
</tr>
<tr>
<td>Lab 103</td>
<td>MW</td>
<td>4:30-6:30</td>
<td>275 Soda</td>
<td>Amir Kamil</td>
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<tr>
<td>Lab 104</td>
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<td>Cancelled</td>
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<tr>
<td>Lab 105</td>
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<tr>
<td>Lab 106</td>
<td>TuTh</td>
<td>9:00-11:00</td>
<td>275 Soda</td>
<td>Jonathan Tse</td>
</tr>
<tr>
<td>Lab 107</td>
<td>MW</td>
<td>2:00-4:00</td>
<td>273 Soda</td>
<td>John Sampson</td>
</tr>
<tr>
<td>Dis 101</td>
<td>TuTh</td>
<td>1:00-2:00</td>
<td>320 Soda</td>
<td>Winston Liaw</td>
</tr>
<tr>
<td>Dis 102</td>
<td>TuTh</td>
<td>2:00-3:00</td>
<td>320 Soda</td>
<td>Steve Sinha</td>
</tr>
<tr>
<td>Dis 103</td>
<td>TuTh</td>
<td>5:00-6:00</td>
<td>320 Soda</td>
<td>Amir Kamil</td>
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<tr>
<td>Dis 104</td>
<td></td>
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<tr>
<td>Dis 105</td>
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<td>Cancelled</td>
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<tr>
<td>Dis 106</td>
<td>WF</td>
<td>10:00-11:00</td>
<td>320 Soda</td>
<td>Jonathan Tse</td>
</tr>
<tr>
<td>Dis 107</td>
<td>TuTh</td>
<td>3:00-4:00</td>
<td>320 Soda</td>
<td>John Sampson</td>
</tr>
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We would like you to attend the lab section in which you are enrolled, however you may attend any discussion section(s) you wish. If you are enrolled in a cancelled section, attend another section and ask the TA if there is room for you. As long as you are enrolled in the course, and have registered your account, you do not need to make any changes through TeleBears. Also, do not contact any of the course staff about enrollment issues – contact Michael-David Sasson in 379 Soda.

The exams will be at 6:40 PM on July 9, July 30, and August 15. The midterms (the first two exams) will be about two hours long and the final will be about three hours long. Their locations will be announced on the webpage.

3 Books

There is one required book and one recommended book for this course:


The first edition of the Goodrich and Tamassia book is in fact more complete than the second edition, so feel free to use the first edition if you have a copy. The Schaum’s outline is intended to be used as an introduction to programming in Java, so we will likely only use it for the first few weeks.

In addition to these books, there are three required course readers, available at Copy Central on Hearst Avenue:

- *Programming Into Java* / Paul N. Hilfinger - 2nd ed.

- *Data Structures (Into Java)* / Paul N. Hilfinger - 2nd ed.

- *CS61B Miscellaneous Notes*

Programming Into Java provides a very thorough treatement of the syntax and behavior of the Java programming language, though you may not find it useful until you have at least some familiarity with the language. Data Structures (Into Java) provides a treatment of various data structures we will cover in this course, yet with a more concrete (less abstraction and pseudocode) approach than Goodrich and Tamassia provide. The last reader provides notes on the programming environment, debugger, and various other things that you may find useful.

4 Coursework

Coursework for the semester will consist of one weekly homework assignment and two weekly labs, except for the last week. Additionally, there will be two midterm exams, one final exam, and three course projects.

Homework assignments will be due at the end of each week and will have exercises that relate to the week’s topics. Each assignment will involve some programming; effort will be made to avoid “busywork” exercises. You may note below that homework assignments are worth a substantial portion of the grade – they are the key to understanding the subjects we study this summer, so it is well worth your while to spend time on them. All homeworks will be submitted electronically, but since summer courses are very condensed, late homework submissions will not be accepted (though we will have a short grace period after the deadline).

Lab exercises allow you to spend time exploring a new topic often using a new programming technique or tool. Since they are done in lab, they allow for you to interact with your TA and clarify misconceptions. At the end of each lab, you must demonstrate certain portions of the assignment to your TA to receive credit for the lab assignment.
The largest assignments of the semester will be the three course projects. These projects involve design, programming, and testing of a reasonably large piece of software. Again, since the summer semester is short, it is absolutely essential that you begin projects as soon as they are assigned. Later projects may involve working in a group to develop a solution. Projects are also to be submitted electronically, and may be submitted late, subject to a 2% / hour lateness penalty (rounded off in some unspecified manner).

5 Evaluation

Points will be distributed as follows:

- 14 lab assignments, 1 point each = 14 points
- 7 homework assignments, 7 points each = 49 points
- 3 project assignments, 20/15/25 points = 60 points
- 2 midterm exams, 20 points each = 40 points
- 1 final exam, 40 points = 40 points

Total = 203 points

Grades will be assigned as follows (with P points):

- P ≥ 190 A+
- 190 < P ≤ 175 A
- 175 < P ≤ 165 A-
- 165 < P ≤ 155 B+
- 155 < P ≤ 145 B
- 145 < P ≤ 135 B-
- 135 < P ≤ 125 C+
- 125 < P ≤ 115 C
- 115 < P ≤ 110 C-
- 110 < P ≤ 105 D+
- 105 < P ≤ 95 D
- 95 < P ≤ 85 D-
- 85 < P F

It is possible that the number of points available to be earned will increase (extra credit) during the semester, but this is not guaranteed. Also, the grade scale represents the minimum possible grade that will be earned with a given number of points (that is, if the scale changes, it will only be to your advantage). Since the scale is not relative, the course is not on a curve. This means that you are not in competition with your fellow classmates, and thus are encouraged to help one another (note however what is considered fair use).

Points have been allotted to assignments in an attempt to reflect their relative difficulty – thus a homework is roughly seven times harder than a lab assignment and a project is a few times harder still.

Exams will be given out of class – midterms will be two hours long and the final exam will be three hours long. This allows you more time to think about questions and not feel time pressure. Also, all exams will be open book, open notes (closed all non-paper items). The dates and times of the exams are listed in the schedule section of this document – you must look at those times and notify the instructor with a valid reason at least one week in advance should you not be able to attend at the scheduled time.

All grades will be available electronically through your class account using the program glookup. If you would like to dispute a grade entered into the grade system for a lab, please contact your TA. Homework assignments and projects will be graded by readers (whose login names will show in glookup), so please contact the appropriate reader for disputes on those assignments. If you would like your exam regraded, first speak with your TA to see whether your request seems reasonable. If it does, explain which questions you want regraded and why on a sheet of paper, staple it to your exam, and hand it in to the instructor. You entire exam may be regraded. Also note that by University policy, final exams may not be regraded.
6 Fair Use

Although collaboration on coursework is encouraged, there are some limits on what is considered “fair use” of another’s work. You are encouraged to work together before doing an assignment to develop a general strategy or solution, however once you begin on an assignment, the work must be your own. Furthermore, you must not share code for your assignments with anyone else nor accept code from anyone else (this is the ever-famous “no-code-rule”). If you are not sure whether your interaction or use is appropriate, speak with your TA or with the instructor before you submit the assignment.

There are some specifically forbidden forms of collaboration: possessing another’s work in any form, giving another your work in any form, working together to produce one solution and submitting it under multiple names, submitting the work of another person as your own. Assignments that are to be done in groups will be clearly marked (the group size is listed on all assignments) and all of the above fair use rules apply then to the group as they did to an individual (you may share within your group but not across groups).

Violation of any of these rules that is deemed as cheating can result in a failing grade in the course, negative score for that incident, or other penalties. Often students find themselves stuck and resort to cheating because they feel behind in the class. If you find yourself in such a position, please come speak to us – we’ll do whatever we can to help you out.