CS 201: Fundamental Structures of Computer Science I
Summer 2015

Instructor: Selim Aksoy
EA 422 (Engineering Building), x3405
saksoy@cs.bilkent.edu.tr
Office hours: Tue 13:40-15:30 or by appointment

TAs: Hamzeh Ahangari (EA 425, hamzeh@bilkent.edu.tr)
Nabil AbuBaker (EA 525, nabil.abubaker@bilkent.edu.tr)
Noushin Faramarzi (EA 525, noushin.salek@bilkent.edu.tr)

Lectures: Mon 8:40-10:30, Tue 15:40-17:30, Thu 10:40-12:30, B-Z08

Course Website: www.cs.bilkent.edu.tr/~saksoy/courses/cs201

Text Books:
(Required) F.M. Carrano, Data Abstraction and Problem Solving with C++, any edition, Addison-Wesley, 2006 or later.
(Recommended) H.M. Deitel and P.J. Deitel, C++ How to Program, any edition, Prentice Hall, 2008 or later.

Course Emphasis and Goals
This course introduces the abstract data types of lists, stacks and queues, and shows how one can implement them in C++ using fundamental data structures. It also introduces recursion and algorithm analysis.

Grading Policy
Quizzes: 15% (closed-book, closed-notes)
Homework: 10%
Midterm 1: 25% (closed-book, closed-notes)
Midterm 2: 25% (closed-book, closed-notes)
Final: 25% (closed-book, closed-notes)

In order to be able to take the final exam, a student must collect at least 26 points (40% of total 65) from the weighted sum of the quiz and midterm grades; otherwise, the student will receive the FZ grade.

The instructor also reserves the right to set other thresholds for passing grades.

Quizzes
There will be several pop-up quizzes throughout the semester. There will be no make-up quiz for the missed quizzes. The quizzes will be closed-book and closed-notes.

Homework Assignments and Late Policy
Homework assignments will be posted on the course website. Assignments are to be turned in by 23:59 on the due date. For the late assignments, each student will be given a total of two grace days (whole or partial) for the whole semester. Once these late days have been exhausted, no late assignments will be accepted. As an example, if Student A submits her/his 1st assignment 23 hours late, s/he will have used one late day and have only one day left. If Student A then submits her/his 2nd assignment 5 hours late, s/he will have used her/his remaining late day. If Student A submits her/his 3rd assignment 1 minute late, this assignment will not be accepted.
**Academic Integrity**

Please make sure you fully understand the Bilkent University Policy on Academic Honesty ([http://www.bilkent.edu.tr/bilkent-tr/admin-unit/hukukm/lisans_yonetmelik.html#madde4.9](http://www.bilkent.edu.tr/bilkent-tr/admin-unit/hukukm/lisans_yonetmelik.html#madde4.9), in Turkish) and the Rules and Regulations of the Higher Education Council (YOK) ([http://www.resmigazete.gov.tr/eskiler/2012/08/20120818-12.htm](http://www.resmigazete.gov.tr/eskiler/2012/08/20120818-12.htm), in Turkish). Cheating and plagiarism on exams, quizzes, and homework assignments will be punished according to these regulations.

**Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>Introduction Ch.3 (Deitel)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Case study Ch.3-5 (Deitel)</td>
<td>Functions Ch.6 (Deitel)</td>
<td>HW 0 out</td>
<td>Functions Ch.6 (Deitel)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Arrays Ch.7 (Deitel)</td>
<td>Pointers Ch.8 (Deitel)</td>
<td>HW 1 out</td>
<td>Pointers Ch.8 (Deitel)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Pointers Ch.8 (Deitel)</td>
<td>Pointers Ch.8 (Deitel)</td>
<td></td>
<td>Case study Ch.9-10 (Deitel)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Recursion Ch.2 (Carrano)</td>
<td>Algorithm analysis</td>
<td>HW 1 in HW 2 out</td>
<td>Lists Ch.3 (Carrano)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Lists Ch.4 (Carrano)</td>
<td>Lists Ch.4 (Carrano)</td>
<td>HW 2 in HW 3 out</td>
<td>Holiday</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Stacks Ch.6 (Carrano)</td>
<td>Stacks Ch.6 (Carrano)</td>
<td></td>
<td>Queues Ch.7 (Carrano)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Review</td>
<td>Review</td>
<td>HW 3 in</td>
<td>Review</td>
<td></td>
</tr>
</tbody>
</table>