CS 201: Fundamental Structures of Computer Science I  
Spring 2017

Instructors:  
Ercüment Çiçek (Section 1)  
EA 531 (Engineering Building), x6941  
cicek@cs.bilkent.edu.tr  
Office hours: by appointment

Çiğdem Gündüz Demir (Section 2)  
EA 423 (Engineering Building), x3443  
gunduz@cs.bilkent.edu.tr  
Office hours: Tue 10:40-12:30 and by appointment

TAs:  
Necmi Acarsoy  
EA 525 (Engineering Building)  
necmi.acarsoy@bilkent.edu.tr  
Office hours: Tue 11:40-13:30

Can Fahrettin Koyuncu  
EA 425 (Engineering Building)  
koyuncu@cs.bilkent.edu.tr  
Office hours: Mon 11:40-13:30

Serhan Yılmaz  
EA 527 (Engineering Building)  
serhan.yilmaz@bilkent.edu.tr  
Office hours: Thu 11:40-13:30

Lectures:  
Wed 13:40-15:30, Fri 15:40-17:30, EE 412 (Section 1)  
Tue 8:40-10:30, Thu 10:40-12:30, EE 04 (Section 2)

Course Website:  
http://www.cs.bilkent.edu.tr/~gunduz/teaching/cs201

Text Books:  
(Required) F.M. Carrano and T. Henry, Data Abstraction and Problem Solving with C++, any edition.  
(Recommended) H.M. Deitel and P.J. Deitel, C++ How to Program, any edition.

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

Homework: 10%
Midterm 1: 30% (closed-book, closed-notes)
Midterm 2: 30% (closed-book, closed-notes)
Final: 30% (closed-book, closed-notes)

In order to be able to take the final exam, a student must collect at least 21 points (35% of total 60) from the weighted midterm grades; otherwise the student will receive the FZ grade.

The instructors also reserve the right to set other thresholds for passing grades.

Homework Assignments and Late Policy

Homework assignments will be posted on the course web site. 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 three 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 29 hours late, s/he will have used two late days and have only one day left. If Students 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://w3.bilkent.edu.tr/www/lisans-ve-on-lisans-egitim-ogretim-vonetmeligi/#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, 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>Subject</th>
<th>Homework</th>
<th>Exams</th>
</tr>
</thead>
</table>
| 1    | Introduction, Ch.3 (Deitel)  
Case study, Ch.3, Ch. 4, Ch.5 (Deitel) |          |       |
| 2    | Functions, Ch.6 (Deitel) |          |       |
| 3    | Arrays, Ch. 7 (Deitel) |          |       |
| 4    | Pointers, Ch.8 (Deitel) |          |       |
| 5    | Pointers, Ch.8 (Deitel) | HW1 out  |       |
| 6    | Pointers, Ch.8 (Deitel) |          |       |
| 7    | Pointers, Ch.8 (Deitel) |          |       |
| 8    | Case study, Ch.9, Ch 10 (Deitel) |          |       |
| 9    | Recursion, Ch.2 (Carrano)  
Algorithm analysis, handout will be available | HW1 in  
HW2 out | Midterm 1  
(April 3, 2017) |
| 10   | Lists, Ch.3, Ch. 4 (Carrano) |          |       |
| 11   | Lists, Ch. 4 (Carrano) | HW 2 in  
HW 3 out |       |
| 12   | Lists, Ch. 4 (Carrano) |          |       |
| 13   | Stacks, Ch. 6, Ch.5.2 (Carrano) |          | Midterm 2  
(May 3, 2017) |
| 14   | Queues, Ch.7 (Carrano) | HW 3 in  |       |