

CS 201: Fundamental Structures of Computer Science I

Spring 2020

Instructors: **Ercüment Çiçek** (*Section 1*)
EA 514 (Engineering Building), x6941
cicek@cs.bilkent.edu.tr
Office hours: by appointment

Aynur Dayanık (*Section 2*)
EA 426 (Engineering Building), x3441
adayanik@cs.bilkent.edu.tr
Office hours: by appointment

TAs: **Alper Kagan Kayalı**
EA 525 (Engineering Building)
kaan.kayali@bilkent.edu.tr
Office hours: by appointment

Aydamir Mirzayev
EA 505 (Engineering Building)
aydamir.mirzayev@bilkent.edu.tr
Office hours: by appointment

Lectures: Tue 10:40-12:30, Fri 8:40-10:30, EE-05 (*Section 1*)
Mon 8:40-10:30, Wed 10:40-12:30, BZ-01 (*Section 2*)

Course Website: <http://www.cs.bilkent.edu.tr/~adayanik/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

Introduction to abstract data types. Lists. Stacks. Queues. Implementing abstract data types in C++. Recursion as a problem solving method for data abstraction.

Grading Policy

HW1 – 15%
HW2 – 10%
HW3 – 15%
HW4 – 15%
Midterm – 20%
Final – 25%

Minimum requirements to qualify for the final exam:

In order to be able to take the final exam, a student

1. must submit Part A of the 1st homework and must get at least half of the points for this part, and
2. must submit the 2nd homework and must get at least 30 points (out of 100), and
3. must submit the 3rd homework and must get at least 20 points (out of 100).

Otherwise the student will receive the FZ grade.

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

Due to the YÖK (Higher Education Council) regulations, we are taking attendance and will report it to the Department at the end of the semester.

Homework Assignments and Late Policy

Homework assignments will be posted on the course web page. Assignments are to be turned in by 23:55 on the due date through Moodle. Note that we will use Moodle for homework submissions.

For the late assignments, each student will be given **three grace days** for each homework assignment. If no submission is received in three days after the homework deadline, no submission will be accepted for that homework.

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-yonetmeligi/#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, and homework assignments will be punished according to these regulations.

Schedule

Week	Beginning	Subject	Homework	Exams
1	Feb 3	Introduction <i>Ch.2, Ch.3, Ch. 4, Ch.5 (Deitel)</i>		
2	Feb 10	Functions, <i>Ch.6 (Deitel)</i>		
3	Feb 17	Pointers and arrays, <i>Ch. 8 (Deitel)</i>		
4	Feb 24	Pointers and arrays, <i>Ch. 8 (Deitel)</i>		
5	Mar 2	Pointers and arrays, <i>Ch. 8 (Deitel)</i>		
6	Mar 9	Case study, <i>Ch.9, Ch 10 (Deitel)</i>	HW1 out	
7	Mar 16	No classes ~ <i>Spring Break</i>		
8	Mar23	Multidimensional arrays, <i>Ch.8 (Deitel)</i>		
9	Mar 30	Recursion, <i>Ch.2 (Carrano)</i> Algorithm analysis, <i>handout will be available</i>		
10	Apr 6	Abstract data types, <i>Ch.8, Ch. 9 (Carrano)</i>	HW1 in HW2 out	
11	Apr 13	Linked lists, <i>Ch.8, Ch. 9 (Carrano)</i>		
12	Apr 20	Linked lists, <i>Ch.8, Ch. 9 (Carrano)</i>	HW2 in HW3 out	
13	Apr 27	Linked lists, <i>Ch.8, Ch. 9 (Carrano)</i>		Midterm (30 April)
14	May 4	Stacks, <i>Ch. 6, Ch.7 (Carrano)</i>	HW3 in HW4 out	
15	May 11	Queues, <i>Sec.13-1, Sec.13-2, Sec.13-4, Sec.14-1 (Carrano)</i>	HW4 in	

Announcement

Dear all,

Below is the updated grading policy for the CS201 for Spring 2020.

HW1 - 15%

HW2 – 10%

HW3 – 15%

HW4 – 15%

Midterm 20% (April 30, 2020)

Final – 25% (Date TBD)

No FZ grades will be assigned due to exam grades. However, FZ grade rules regarding the homeworks stand.

Note that now we have a single midterm and you have an additional homework. The midterm and the final will be done in an online take-home fashion. You will take each question separately for a prespecified allotted amount of time (e.g. 20 mins), and will not have a chance to go back. At the end of the period for that question, you will have exactly 5 mins to upload your answer to Moodle. If a problem occurs with Moodle, you will email your answer with subject line “CS201 exam answer” to cicek@cs.bilkent.edu.tr. You should include your name and student number in the email. Note that late submissions (even a couple of mins) will not be graded. You are required to upload a picture of your hand-written answer. Typed answers will not be accepted. Make sure your picture is clearly readable. For each question in the exam, we will have multiple versions in a pool and Moodle will assign you one randomly. The number of questions and the time allotted per question will be announced before the exam. After the exam we will call a randomly selected subset of the class for an oral exam to discuss your answers. We might also ask for an oral exam if we suspect that you plagiarized. While we expect this skeleton to stay mostly intact, we reserve the right to make changes to the above-mentioned rules and will notify you immediately if that is the case.

We will follow the Bilkent University Code of Academic Integrity, as explained in the Student Disciplinary Rules and Regulation. Violations of the rules will not be tolerated. By taking the exam you accept the honor code that you will solve the questions on your own without any collaboration. It is a closed-book, closed-notes exam and you accept that you will not access to any course related material during the exam (online or offline).