CS 201: Fundamental Structures of Computer Science I
Fall 2007

Instructors: **Selim Aksoy** (*Sections 1 & 2*)
EA 423 (Engineering Building), x3405
saksoy@cs.bilkent.edu.tr
Office hours: Thu 10:40-12:30

Çiğdem Gündüz Demir (*Sections 3, 4 & 5*)
EA 407A (Engineering Building), x3443
gunduz@cs.bilkent.edu.tr, demir@cs.bilkent.edu.tr
Office hours: Mon 13:40-15:30, Tue 13:40-15:30

TAs: Nazlı İkizler (EA 522)
Hüseyin Gökhan Akçay (EA 522)
Süleyman Tuncer Erdoğan (EA 529)
Mümin Cebe (EA 529)
Miray Kaş (EA 434)

Lectures: Mon 10:40-12:30, Thu 8:40-10:30, B206 (*Section 1*)
Mon 15:40-17:30, Thu 13:40-15:30, B206 (*Section 2*)
Tue 10:40-12:30, Fri 8:40-10:30, B204 (*Section 3*)
Tue 15:40-17:30, Fri 13:40-15:30, B204 (*Section 4*)
Mon 15:40-17:30, Thu 13:40-15:30, B204 (*Section 5*)

Course Websites: http://www.cs.bilkent.edu.tr/~saksoy/courses/cs201 (*all sections*)

Text Books: (*Required*) H.M. Deitel and P.J. Deitel, *C++ How to Program,* 5th ed, Prentice Hall, 2005.
(*Required*) F.M. Carrano, *Data Abstraction and Problem Solving with C++,* 4th ed, Addison-Wesley, 2005.
(*Recommended*) M.A. Weiss, *Data Structures & Algorithm Analysis in C++,* 3rd ed, Addison-Wesley, 2006.

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 studies recursion as a problem solving technique using data abstraction.

Grading Policy

Quizzes: 20% (closed-book, closed-notes, no A4 sheet is allowed)
Homework: 15%
Midterm: 30% (closed-book, closed-notes, one A4 sheet is allowed)
Final: 35% (closed-book, closed-notes, one A4 sheet is allowed)

Quizzes

There will be six in-class quizzes. Quizzes will be given in class with advance notice; the topics covered by each quiz will also be announced in advance. The quizzes will be closed-book and closed-notes, and you may not bring an A4 sheet with you.

Homework Assignments and Late Policy

Homework assignments will be posted on the course web site about two weeks before their due date. Assignments are expected to be turned in by 18:00 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.

You should upload your homework using the online submission form before the deadline. Your submission must include your source code; no hardcopy (printer output) will be required if it is not announced otherwise. Always make sure that the code you submit does compile and run correctly. Graded assignments are to be picked up from the TAs during their office hours. Late submissions should also be done through the online submission form.

Academic Integrity

Copying or communicating during an exam is considered cheating. Students caught cheating in an exam will be subject to disciplinary action, as explained in the "Student Disciplinary Rules and Regulation" (www.provost.bilkent.edu.tr/procedures/AcademicHonesty.htm).

Academic integrity is a problem on programming assignments. Please refer to the "Honor Code Statement" to understand which actions violate the academic integrity. Each student is expected to read and understand this "Honor Code Statement" and return a signed copy of this form to his/her instructor. For those who do not return the signed copy, the homework assignments will not be graded. Students caught cheating on assignments will also be subject to disciplinary action.

Schedule

Week	Subject	Reading
1	Introduction, classes and objects	Ch.3, Ch.4 (Deitel)
2	Control statements	Ch.5 (Deitel)
3	Functions	Ch.6 (Deitel)
4	Arrays	Ch.7 (Deitel)
5	Pointers	Ch.8 (Deitel)
6	Pointers	Ch.8 (Deitel)
7	Classes: a deeper look	Ch.9, Ch.10 (Deitel)
8	Operator overloading	Ch.11 (Deitel)
9	Recursion	Ch.2 (Carrano)
10	Algorithm analysis	Handout will be available
11	Lists	Ch.3, Ch. 4 (Carrano)
12	Lists	Ch.4 (Carrano)
13	Stacks	Ch.6, Ch.5.2 (Carrano)
14	Queues	Ch.7 (Carrano)