METU Department of Computer Engineering
CENG 140 C Programming
Fall 2021 (Covid Online Semester) Syllabus

Instructor:
İsmail Sengör Altıngövde   Tel: 210 5580   Office: A203   altingovde@ceng.metu.edu.tr

Lecture Hours:
Section 1:   Thursday 13:40, 14:40 (Online)   Friday 16:40 (Online)

Teaching Assistants:
Yusuf M. Çetinkaya   Tel: Office: yusufc@ceng.metu.edu.tr
Arif Görkem Özer   Tel: Office: gorkem@ceng.metu.edu.tr
Emre Külah   Tel: Office: kulah@ceng.metu.edu.tr

Catalog Description
Advanced programming with C: storage and control structures, recursion and programming with dynamic data structures. Homeworks are required to run on Unix environment.

Textbook
Programming in ANSI C, Kumar & Agrawal, WEST Publishing Co., 1992. ISBN: 0-314-89563-9 (http://ramkumar.agrawal-family.org/ansic.htm)

Course web pages
http://cengclass.ceng.metu.edu.tr and http://odtuclass.metu.edu.tr

Course Outline (tentative)

Week 1	General Overview of Programming
Week 2	Sequential Structure, Statements, Type Conversion
Week 3	Selective Structure, Nested Selective Structures
Week 4	Repetitive Structure, Nested Loops
Week 5	Functions, Activation Records
Week 6	Recursion
Week 7	Arrays and Pointers
Week 8	Arrays and Pointers
Week 9	Dynamic Memory Management
Week 10	Strings
Week 11	Structures & Unions
Week 12	Structures & Unions
Week 13	Operations on Bits
Week 14	File Processing

Course conduct
- Weekly lectures
- Lab practices (7 of them, graded, textbook allowed)
- Lab exams (3 of them, graded, exam style)
- Take-home exams (3 of them)
- In-class exams (Midterm and Final)

Grading (tentative)
- Lab practices (7 practices)   4%
- Lab exams (3 exams)   21%
  (two or more **zero grades** mean **FAILING** the course directly and you will be graded as "NA")
- Take-home exams (3 of them)   35%
- Midterm (face-to-face/online)   15%
- Final (face-to-face/online)   25%
  (missing the final exam without a legal excuse means **FAILING** the course directly and you will be graded as "NA")

COURSE POLICIES (please read carefully)

1) Lab-practices: There will be up to 8 lab practices throughout the semester. In each of these practices, the teaching assistants (TAs) will shortly cover a subject that is related to what you have learnt in the lectures in that week, and then give you simple programming question(s). Here, through a web based interface you will write your solution and submit it (your program will get automatically evaluated at the spot). You may use the **textbook** and your **lecture notes**. You may interact with the TAs (but *not* your friends).

Update for the online semester: You can provide the answer to the recitation quiz till **23:59** of the day question is assigned at the latest.

2) Lab exams: Three times you will receive programming assignments prior to the weekend. The following week, you will have to attend a lab session which will run for **2 hours**: An in-lab-exam. Again, through a web based interface you will write your assignment and submit it (your program will get automatically evaluated at the spot). However, in the lab exams, you **cannot have any help from a person (i.e., TAs) or a written/electronic document (including textbook, lecture notes, whatever),** since this is an "**exam**".

The assignment you will be programming during the lab session will slightly differ then the one you will receive prior to the weekend. Though the difference will be minor, it will assure the uselessness of a blind memorization. The level of the assignment will carefully be trimmed so that for a first comer to C it will not be possible to program it on the spot without having done a preliminary study/implementation at home. Grading is based on automatic evaluation (blackbox testing by a software) with a similar yet **different input** than the one given during the lab; and in certain cases, TAs may check your code manually to see if it obeys all the requirements of the lab assignment.

Update for the online semester: Lab exams will be online. During the lab exams, the cameras must be turned on and the session will be recorded.

REMARK: If a student **gets two (or more) zero grades from the lab exams**, s/he **fails the course** automatically and will get the grade "NA".

3) Take-Home Exams (THEs): There are 3 Take-Home Exams. All of the Take-Home Exams are C programming tasks and will be graded automatically (by means of a testing program). Though the input/output testing of a Take-Home Exams is a "blackbox test", your source code will be investigated for neatness and plagiarism. Furthermore, for each THE, the TAs may invite a randomly-selected subset of students to **discuss/explain** their solutions; failing during these discussion sessions will reduce your grade for that THE.

Usually you will have 2-3 weeks of time to turn your take-home exams in. This time shall be used properly. The level of the take-home exams are so that a "hard work on the last 2-3 days" will not suffice. You are strongly advised to start concentrating on it right after you received it.

REMARK: For all Take Home Exam submissions, late submission is **not** allowed. The deadline is the last second where the day of submission changes to the day after.

REMARK: As the name THE implies, this work is considered as an examination and it should be **your own work**. Any plagiarism will be considered as **cheating in an exam** and will initiate **a disciplinary action**.

4) Midterm & Final exams: Midterm and Final Exams will be conducted **face-to-face in the class**. Those who take all the courses of the semester online and reside out of Ankara may apply for taking the exams online. These online exams will be given as a separate exam in a short time period following the scheduled face-to-face exam. In case of taking an online Midterm or Final, the cameras must be turned on and the session will be recorded.

You may miss an exam only if you have a **legal excuse** (e.g., approved medical report or formal permission; in the latter case, you should inform the instructor in advance). There will be a make-up exam right after the week following the end of the legal excuse. In case of **missing the final exam** without a legal excuse, the student **fails the course** automatically and will get the grade "NA".

---

5) Following the course:

- Live lectures will be at the **Zoom** platform

- Lecture materials (recorded videos and presentations) will be made available at **odtuclass.metu.edu.tr**

- Recitation and lab exam materials will be made available at **cengclass.ceng.metu.edu.tr**

- The announcements will be given on the **COW**.