

METU
Department of Computer Engineering
CENG 140 C Programming
Spring 2015 Syllabus

Instructors:

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Lecture Hours:

Section 1: Wednesday 10:40, 11.40 (BMB1); Friday 12:40 (BMB1)
Section 2: Monday 9:40 (BMB-3) Wednesday 10:40, 11.40 (BMB-3);
Section 3: Monday 9:40 (BMB-2) Wednesday 10:40, 11:40 (BMB2)

Teaching Assistants:

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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 page

<http://cow.ceng.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	Strings
Week 10	Dynamic Memory Management
Week 11	Structures & Unions
Week 12	Structures & Unions
Week 13	Operations on Bits
Week 14	File Processing

Course conduct

- Weekly lectures
- Lab practices (8 of them, graded, textbook allowed)
- Lab exams (4 of them, graded, exam style)
- Take-home exams
- In-class exams

Grading (tentative)

Lab practices (8 practices)	4%
Lab exams (4 exams)	20%
(missing any two of these labs without a legal excuse means FAILING the course directly!)	
Take-home exams (2 exams)	26%
Midterm	25%
Final	25%

COURSE POLICIES (please read carefully)

1) Lab-practice: There will be 8 lab practices throughout the semester. In each of these practices, the teaching assistants (TAs) may shortly cover a subject that is related to what you have learnt in the lectures in that week, and then we will 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 graded at the spot). You may **only** use the **textbook** and your **lecture notes** (but *no* other written or electronic resources). You may interact with the TAs (but *not* your friends).

2) Lab exams: Four 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 lectures: An in-lab-exam. Again, through a web based interface you will write your assignment and submit it (your program will be automatically graded). However, in the lab exams, you **cannot request any help/explanation from a person (i.e., TAs) or use 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 from 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 tailored so that for a first comer to C it will not be possible to program it on the spot without having done a similar preliminary study/implementation before. 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.

REMARK: If a student **misses two (or more) lab sessions** (a practice or an exam) without legal excuses, s/he **fails the course** automatically.

REMARK: At the beginning of the semester, you have to fill your **busy hours** at COW. The schedule for lab sessions will be announced in the first week of the semester, so do it as soon as possible.

3) Take-Home Exams (THEs): There are 2 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 will 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 working 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 and final exams: The exams will include both **test and classical style** questions. You may miss the midterm exam only if you inform the instructors **before** the exam and you have a **legal excuse** (e.g., approved medical report). There will be a make-up exam right after the week following the end of the legal excuse.

5) Course COW page and news group: The announcements will be given on COW. You should periodically check the COW page (at least once daily) and follow the course news group. Note that news group is for discussing the issues related to course content, but **not** the administrative issues (e.g., changing your section, or objection for your grade, etc.); for the latter type of questions directly email to the TA(s) or instructor(s).