

SABANCI UNIVERSITY
Faculty of Engineering and Natural Sciences
CS303 – Logic and Digital System Design
Fall 2022/2023 Syllabus

Instructor

Ömer Ceylan, FENS 1039, omer.ceylan@sabanciuniv.edu

Office Hours: TBD

Teaching Assistants

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Class Schedule

Wednesday 13:40-15:30 (FENS G077)

Thursday 16:40-17:30 (FENS G077)

Lab Schedule

A- Monday 14:40-16:30 (FENS 1033)

B- Wednesday 15:40-17:30 (FENS 1033)

C- Thursday 14:40-16:30 (FENS 1033)

D- Tuesday 16:40-18:30 (FENS 1033)

E- Wednesday 10:40-12:30 (FENS 1033)

F- Monday 10:40-12:30 (FENS 1033)

G- Monday 12:40-14:30 (FENS 1033)

H- Thursday 10:40-12:30 (FENS 1033)

Recitation Schedule

Wednesday 18:40-19:30 (FENS G077)

Textbook: M. Morris Mano and Michael D. Ciletti. Digital Design: With an Introduction to the Verilog HDL. Fifth Edition, Pearson, 2013, ISBN 978-0-273-76452-6. (Any edition is fine)

Tentative Course Outline:

- Number Systems & Arithmetic
- Boolean Algebra & Logic Operations
- Gate-Level Minimization
- Analysis & Design of Combinational Logic Circuits
- Analysis & Design of Synchronous Sequential Logic Circuits
- Registers & Counters
- Design with Algorithmic State Machines (ASM)
- Memory & Design with Programmable Logic

Course Policies:

- Cheating will not be tolerated. Please submit your original work. If you submit any work violating academic ethics, you will get a ZERO for your first attempt. Repeating it will end up with an F grade.
- For any late submissions there will be a penalty.
Up to 1 day: 20% reduction
Up to 2 days: 50% reduction
More than 2 days: 100% reduction
- There will be 4-5 labs in total. Labs will be performed as a group work. Each group consists of 2 students.
- There will be a final course project, which will be a big development project compared to the labs. It is essential for students to meet the time schedule of the project. Each student must demonstrate his/her own work.
- For each lab that you did not submit, you will get a one-letter-grade-down.
- Homeworks will not be graded. However, you have to submit your homeworks. If you do not submit your homework or you submit a junk homework, you will get 1% reduction for each homework you did not submit. Homeworks are important to learn and practice.
- Attendance is important. Top Hat application will be used to record the attendance. For every 4 lectures that you did not attend, you will get 1% reduction in your final grade.

Grading Policy:

Midterm 1	20%
Midterm 2	20%
Labs	20%
Final Project	10%
Final	30%
Failing to submit homework (for each)	-1%
Failing to attend 4 lectures (for each)	-1%

Make-up Exam:

There will be a single make-up exam after the final exam. It is the responsibility of the student to contact the instructor if he/she needs to take the make-up exam. You should have a medical report to be eligible for the make-up exam.

Important Notes:

- In case of an online or hybrid education, your webcam and microphone should be on during the exams. In the case of non-compliance with this and other declared exam procedures, your exam will be void. Make sure to check that your webcam and microphone function properly before the exam.
- You may be given an oral exam to check the authenticity of the written exam by going through the questions of the written exam.
- You must attend the synchronous Zoom lectures, recitations, etc. and real-time online exams with your SU email account in case of an online or hybrid education.