EPFL

Institute of Electrical and Microengineering

Biomedical and neuromorphic microelectronic systems

DIGITAL IC DESIGN
COURSE ORGANIZATION

1. COURSE ORGANIZATION 2025

"Digital IC Design" (EE-330, formerly "IC Design II") is offered to students registered in Génie électrique et électronique in EPFL in their sixth semester of bachelor as a mandatory course, and is opened to master and bachelor students registered in other sections/programs upon request. EE-330 is proposed in a weekly schedule consisting of three hours. The weekly time slot is allocated as class lectures, exercise sessions, or practical laboratory sessions.

In regards of the sanitary situation related to the pandemics, adaptations to the course format may be done and may be carried over during the semester. The entire EE-330 class will be offered in hybrid mode, and will follow the EPFL directives.

1.1 CLASS LECTURES

Class schedule and documents

Schedule	Room	Documents
Monday 14:15 - 16:00	ELD020 (Video)	A copy of lecture slides is handed out every week and/or are available for download. Documents related to the course are available for download from following URL: http://moodle.epfl.ch/course/view.php?id=15809 Course lectures are based on following textbook: M. B. Lin, EIntroduction to VLSI Systems: A Logic, Circuit, and System Perspective, CRC Press, 2012

1.2 EXERCISES SESSIONS

Exercises are distributed on a regular basis, in order to complement class lectures. The exercises are recommended as homeworks following a class lecture. Exercises are neither turned in, nor graded.

Regular exercise sessions are scheduled. Assistants will be available and answer questions during these sessions.

Exercise sessions schedule

Schedule	Room	Documents
Monday 16:15 - 17:00	ELD020 (Zoom) Moodle forum	Exercises are handed out at the beginning of class lectures, and are available for download from following URL: http://moodle.epfl.ch/course/view.php?id=15809 Exercise solutions are handed out in class

A Q&A forum is available on the Moodle website. Please feel free to use it for questions related to the theory and the exercises.

1.3 PRACTICAL LABORATORY SESSIONS

Some practical laboratory sessions may be scheduled in replacement of class lectures/exercises. Laboratory sessions are not graded. Information will follow.

1.4 COURSE GRADING

EE-330 is graded based upon following elements:

- final examination (written exam): 100% of final grade. The exact topics coverage and examination policy will be disclosed during the semester.

1.5 INFORMATION AND COMMUNICATION

Following web site has been prepared to host documents, information, etc.:

http://moodle.epfl.ch/course/view.php?id=15809

Accessing this website will enroll you to the course. Your enrollment access code is: ee330Yyx2025

Due to the sanitary situation that imposes hybrid teaching, all information will be delivered on the course Moodle website. You are kindly invited to check the updated content of the web site on a regular basis.

Urgent and general significance information will be delivered by broadcast e-mail. Please make sure you have registered into IS-Academia, and have enrolled to the course.

1.6 DETAILED SCHEDULE

Please rigorously conform to following detail schedule.

Week	Date	Schedule	Location	Part
1 (8)	17.02.2025	14:15-16:00	ELD020	Class lecture, L00, L01a
		16:15-17:00	ELD020	Exercises session #1, HW01, Ex. 1.1 and 1.2
2 (9)	24.02.2025	14:15-16:00	ELD020	Class lecture, L01b, L02a
		16:15-17:00	ELD020	Exercises session #2, HW01, Ex. 1.3 through Ex. 1.7
3 (10)	03.03.2025	14:15-16:00	ELD020	Class lecture, L02b, L02c
		16:15-17:00	ELD020	Exercises session #3, HW02
4 (11)	10.03.2025	14:15-16:00	ELD020	Class lecture, L02c, L03a
		16:15-17:00	ELD020	Exercises session #4, HW03
5 (12)	17.03.2025	14:15-16:00	ELD020	Class lecture, L03b
		16:15-17:00	ELD020	Exercises session #5, HW04
6 (13)	24.03.2025	14:15-16:00	ELD020	Class lecture, L04
		16:15-17:00	ELD020	Exercises session #6, HW05
7 (14)	31.03.2025	14:15-16:00	ELD020	Class lecture, L05
		16:15-17:00	ELD020	Exercises session #7, HW06
8 (15)	07.04.2025	14:15-16:00	ELD020	Class lecture, L06
		16:15-17:00	ELD020	Exercises session #8, HW07

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Week	Date	Schedule	Location	Part
- (16)	14.04.2025	14:15-16:00	ELD020	Class lecture, L07a
		16:15-17:00	ELD020	Exercises session #9, HW08, Ex. 8.1 and Ex. 8.2
9 (17)	21.04.2025	14:15-16:00	School holiday	
		16:15-17:00		
10 (18)	28.04.2025	14:15-16:00	ELD020	Class lecture, L07b
		16:15-17:00	ELD020	Exercises session #10, HW08, Ex. 8.3 through Ex. 8.4
11 (19)	05.05.2025	14:15-16:00	ELD020	Class lecture, L08a
		16:15-17:00	ELD020	
12 (20)	12.05.2025	14:15-16:00	ELD020	Class lecture, L08b
		16:15-17:00	ELD020	Exercises session #11, HW09
13 (21)	19.05.2025	14:15-16:00	ELD020	Class lecture, L09a
		16:15-17:00	ELD020	Exercises session #12, HW10
14 (22)	26.05.2025	14:15-16:00	ELD020	Class lecture, L09b
		16:15-17:00	ELD020	