

CS-470 – Advanced Computer Architecture

SIN, SSC, and SEL MSc

Computer Engineering Specialization

Spring 2025

Week	Date	Time	Room	Lectures	Labs	Homework Sets
1	Wed 19.02.25			No course		
2	Wed 26.02.25			No course		
3	Wed 05.03.25	13h - 16h	INM200	Introduction		
				Exploiting ILP Dynamically — Pipelining		
4	Wed 12.03.25	13h - 16h	INM200	Exploiting ILP Dynamically — Dynamic Scheduling		
				Exploiting ILP Dynamically — Renaming Registers		
5	Wed 19.03.25	13h - 16h	INM200	Exploiting ILP Dynamically — Prediction and Speculation		Set #1 distributed
	Thu 20.03.25	11h - 13h	BC07-08		Lab #1a: MIPS R10000	
6	Wed 26.03.25	13h - 16h	INM200	Exploiting ILP Dynamically — Prediction and Speculation		
	Thu 27.03.25	11h - 13h	BC07-08		Lab #1b: Homework Set #1 support	
7	Wed 02.04.25	13h - 16h	INM200	Exploiting ILP Dynamically — Simultaneous Multithreading		
				Exploiting ILP Statically — VLIW Architectures		
	Thu 03.04.25	11h - 13h	BC07-08		Lab #1c: Homework Set #1 support	
8	Wed 09.04.25	13h - 16h	INM200	Exploiting ILP Statically — VLIW Architectures		Set #2 distributed
				Exploiting ILP Statically — Compiler Techniques for VLIWs and IA-64		
	Thu 10.04.25	11h - 13h	BC07-08		Lab #2a: Intel Itanium	
	Tue 15.04.25					Set #1 due
9	Wed 16.04.25	13h - 16h	INM200	Exploiting ILP Statically — Compiler Techniques for VLIWs and IA-64		
				Dynamic Binary Translation		
	Thu 17.04.25	11h - 13h	BC07-08		Lab #2b: Homework Set #2 support	
10	Wed 30.04.25	13h - 16h	INM200	Application-Specific Computing — Instruction Set Extensions and High Level Synthesis		
	Thu 01.05.25	11h - 13h	BC07-08		Lab #2c: Homework Set #2 support	
	Tue 06.05.25					Set #2 due
11	Wed 07.05.25	13h - 16h	INM200	Application-Specific Computing — Instruction Set Extensions and High Level Synthesis		Set #3 distributed
				Application-Specific Computing — Challenges of High Level Synthesis		
	Thu 08.05.25	11h - 13h	BC07-08		Lab #3a: Xilinx VivadoHLS design optimization	
12	Wed 14.05.25	13h - 16h	INM200	Hardware Security — Microarchitectural Side-Channel Attacks		
	Thu 15.05.25	11h - 13h	BC07-08		Lab #3b: Homework Set #3 support	
13	Wed 21.05.25	13h - 16h	INM200	Hardware Security — Physical Side-Channel Attacks		Set #4 distributed
	Thu 22.05.25	11h - 13h	BC07-08		Lab #4a: Cache Attacks	
	Tue 27.05.25					Set #3 due
14	Wed 28.05.25			Online Hardware Security — Trusted Execution Environments		
	Thu 29.05.25	11h - 13h	BC07-08		Lab #4b: Homework Set #4 support	
	Mon 09.06.25					Set #4 due