8803 Compilers: Detailed Pacing Schedule

Lessons and Textbook Reading

Week	Dates	Topic	Lessons	Textbook Reading
1	Aug 22 – Aug 28	Introduction	P1L1	Ch 1
2	Aug 29 – Sep 4	Scanners and DFA / NFA	P1L2, P1L3	Ch 2
3	Sep 5 – Sep 11	Parsers and Context Free Grammars	P1L4, P1L5	Ch 3 – 3.3.2
4	Sep 12 – Sep 18	LL(1) Parsers	P1L6	Ch 3.3.3 - 3.7 (skip 3.4, 3.6.2)
5	Sep 19 – Sep 25	Semantic Analysis	P2L1	Ch 4 – 4.4, 4.5.2, 4.6
6	Sep 26 – Oct 2	IR Generation	P2L2	Ch 5 – 5.3.3, 5.5, 5.6
7	Oct 3 – Oct 9	--	--	--
8	Oct 10 – Oct 16	Control Flow Graph/Liveness Analysis	P2L3, P3L1	Ch 5.3.4, Ch 9 – 9.2
9	Oct 17 – Oct 23	Register Allocation	P3L2	Ch 13 – 13.4
10	Oct 24 – Oct 30	Procedures / Code Shape	P4L1	Ch 6–6.5, Ch7-7.2, 7.5-7.5.1, 7.9
11	Oct 31 – Nov 6	Code Optimization	P3L3	Ch 8 – 8.5
12	Nov 7 – Nov 13	Instruction Selection	P3L4	Ch 11 – 11.4
13	Nov 14 – Nov 20	Object Oriented Support	P4L2	--
14	Nov 21 – Nov 27	Optional: Dominance, SSA, GVN*	--	Ch 9.3*, Ch 10.5*
15	Nov 28 – Dec 4	Review for Final Exam	--	--
16	Dec 5 – Dec 8	Review for Final Exam	--	--

- In many cases, the book chapters cover many additional topics than the respective lectures, in some cases, book chapters give many additional details. Therefore, students should study BOTH the lesson videos and the suggested book materials.
- In the above pacing schedule, the chapter ranges are **inclusive**. For example, Ch9 – 9.2 means from the beginning of chapter 9 up-to and **including** section 9.2.
- * Optional Lesson: These lessons will not be covered in homework or final exam.

Homeworks, Project, and Finals (Dates are tentative)

Assignment	Date Assigned	Date Due	
Homework 1	Aug 22	Sep 12	11:59 PM AOE
Homework 2	Sep 12	Oct 3	11:59 PM AOE
Homework 3	Oct 10	Oct 31	11:59 PM AOE
Homework 4	Oct 31	Nov 21	11:59 PM AOE
Project Phase 1	Aug 29	Sep 19	11:59 PM AOE
Project Phase 2	Sep 19	Oct 17	11:59 PM AOE
Project Phase 3	Oct 17	Dec 5	11:59 PM AOE
Final Exam	Dec 9	Dec 12	11:59 PM AOE

- Final exam is **cumulative** and will be administered through HonorLock.
- Due Date/Times are in **AOE** time zone (UTC -12) and subject to change.

Weekly Planner																
Week #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Dates	Aug 22 - Aug 28	Aug 29 - Sep 4	Sep 5 - Sep 11	Sep 12 - Sep 18	Sep 19 - Sep 25	Sep 26 - Oct 2	Oct 3 - Oct 9	Oct 10 - Oct 16	Oct 17 - Oct 23	Oct 24 - Oct 30	Oct 31 - Nov 6	Nov 7 - Nov 13	Nov 14 - Nov 20	Nov 21 - Nov 27	Nov 28 - Dec 4	Dec 5 - Dec 8 / Dec 9 - Dec 12
Topic	Introduction	Scanners and DFA / NFA	Parsers and Context Free Grammars	LL(1) Parsing	Semantic Analysis	IR Generation	--	Control Flow Graphs and Liveness Analysis	Register Allocation	Procedure Abstraction / Code Shape	Code Optimization	Instruction Selection	Object Oriented Support	*Dominance, *SSA Form, *Global Value Numbering	Review for Final	Review for Final
Modules	P1L1	P1L2, P1L3	P1L4, P1L5	P1L6	P2L1	P2L2	--	P2L3, P3L1	P3L2	P4L1	P3L3	P3L4	P4L2			
Textbook	Ch 1	Ch 2	Ch 3 - 3.3.2	Ch 3.3.3 - 3.7 (skip 3.4, 3.6.2)	Ch 4 - 4.4, 4.5.2, 4.6	Ch 5-5.3.3, 5.5, 5.6	--	Ch 5.3.4, Ch 9-9.2	Ch 13-13.4	Ch 6-6.5 Ch 7-7.2, 7.5 - 7.51, 7.9	Ch 8-8.5	Ch 11-11.4	--	* Ch 9.3, * Ch 10.5		
Homework	HW1 (Weeks 1-3)			HW2 (Weeks 4-6)				HW3 (Weeks 8-10)			HW4 (Weeks 11-13)					
Project		Project Phase 1 (Weeks 2-3)			Project Phase 2 (Weeks 5-10)						Project Phase 3 (Weeks 11-14)					
Exam																Final Exam

*Optional reading. Not required.