

CSC 420, Spring 2022

Mon	Wed	Fri
Jan 10, 2022	Jan 12, 2022	Jan 14, 2022
		Intro/Preview
Jan 17, 2022	Jan 19, 2022	Jan 21, 2022
No class (MLK) Due: • RQ 0.1, 0.2A	0.1, 0.2A (p 1-7) Due: • RQ 0.2B, D 0.2A	0.2B (p 7-13) Due: • RQ 0.2C/0.3/0.4A, D 0.2B
Jan 24, 2022	Jan 26, 2022	Jan 28, 2022
0.2C/0.3/0.4A (p 13-22) Due: • RQ 0.4B, D 0.2C/0.3/0.4A	0.4B (p 22-25) Due: • RQ 1.1A, D 0.4B	1.1A (p 31-44) Due: • RQ 1.1B, D 1.1A
Jan 31, 2022	Feb 2, 2022	Feb 4, 2022
1.1B (p 44-47) Due: • RQ 1.2A, D 1.1B	Snow Day	1.2A (p 47-54) Due: • RQ 1.2B, D 1.2A
Feb 7, 2022	Feb 9, 2022	Feb 11, 2022
1.2B (p 54-63) Due: • RQ 1.3A, D 1.2B	1.3A (p 63-66) Due: • RQ 1.3B, D 1.3A	1.3B (p 66-76) Due: • RQ 1.4, D 1.3B
Feb 14, 2022	Feb 16, 2022	Feb 18, 2022
1.4 (p 77-82) Due: • RQ 2.1A, D 1.4	1.4 (p 77-82) Due: • D 1.4	2.1A (p 101-107) Due: • RQ 2.1B, D 2.1A
Feb 21, 2022	Feb 23, 2022	Feb 25, 2022
2.1B (p 107-111) Due: • RQ 2.2A, D 2.1B, Ch 1 Portfolio	2.2A (p 111-116) Due: • RQ 2.2B, D 2.2A	2.2B (p 117-124) Due: • RQ 2.3, D 2.2B
Feb 28, 2022	Mar 2, 2022	Mar 4, 2022
2.3A (p 125-129) Due: • RQ 3.1, D 2.3	Midterm Exam (1.1-2.2)	2.3B (p 125-129); Preview 3.1 Due: • D 2.3
Mar 7, 2022	Mar 9, 2022	Mar 11, 2022
Spring Break	Spring Break	Spring Break
Mar 14, 2022	Mar 16, 2022	Mar 18, 2022
3.1 Due: • RQ 3.2, D 3.1	3.2 Due: • RQ 3.3, D 3.2, Ch 2 Portfolio	3.3 Due: • RQ 4.1, D 3.3
Mar 21, 2022	Mar 23, 2022	Mar 25, 2022
4.1 Due: • RQ 4.2A, D 4.1	4.2A (p 201-205) Due: • RQ 4.2B, D 4.2A	4.2B (p 205-210) Due: • D 4.2B
Mar 28, 2022	Mar 30, 2022	Apr 1, 2022
Preview Ch 5 Due: • RQ 5.1	5.1 Due: • RQ 5.2, D 5.1	5.2 Due: • RQ 5.3, D 5.2
Apr 4, 2022	Apr 6, 2022	Apr 8, 2022
5.3 Due: • N/A	Preview Ch 7 Due: • RQ 7.1	7.1 Due: • RQ 7.2A, D 7.1, Ch 3-5 Portfolio
Apr 11, 2022	Apr 13, 2022	Apr 15, 2022
7.2A (p 284-290) Due: • RQ 7.2B, D 7.1B	7.2B (p 290-291) Due: • RQ 7.3, D 7.2B	Easter Break
Apr 18, 2022	Apr 20, 2022	Apr 22, 2022
7.3 Due: • RQ 7.4A, D 7.3	7.4A (p 299-304) Due: • RQ 7.4B, D 7.4A	7.4B (p 304-311) Due: • RQ 7.5A, D 7.4B
Apr 25, 2022	Apr 27, 2022	Apr 29, 2022
7.5A Due: • RQ 7.5B, D 7.5A	7.5B Due: • D 7.5B	Wrap-up Ch 7 Due: • Ch 7 Portfolio

CSC 420, Spring 2022

Sections	Discussion Problems
0.1, 0.2A	0.1abc, 0.2abc, 0.3
0.2B	0.6, 0.8
0.2C, 0.3, 0.4A	0.1ef, 0.2def, 0.10, 0.13
0.4B	0.11
1.1A	2, 3, 6(a)-(e), (g), (i)
	Note: a DFA is simply a finite automaton, as defined in 1.1.
1.1B	4, 5(a)-(c),(g),(h), 6(f)(h), (j)-(n)
1.2A	7(a)-(d), (g), 13, 14
1.2B	8, 9, 10, 16
1.3A	5(d)-(f), 7(e)(f), 12, 18 but skip (f), 20
1.3B	19, 21, 28
1.4	29, 30, 46
2.1A	2.1, 2.3, 2.4, 2.6; if time 2.13
2.1B	2.8, 2.9
2.2A	2.5, 2.7, 2.10
2.2B	2.11, 2.12; if time 2.15, 2.16, 2.17
2.3	2.2, 2.30
3.1	3.1, 3.2, 3.5, 3.8
3.2	3.3, 3.6, 3.10
3.3	3.7, 3.15, 3.16abcd, 3.22
4.1	4.1, 4.2, 4.3, 4.4
4.2A	4.6, 4.8
4.2B	4.5, 4.7
5.1	5.1, 5.2
	Hint for 5.1: Assume that EQ_CFG is decidable. Use the (supposed) decider to construct a decider for ALL_CFG.
	Hint for 5.2: Construct a TM to recognize the complement of EQ_CFG; use the decider for A_CFG.
5.2	5.3
5.3	5.4, 5.5, 5.6, 5.7
7.1	7.1, 7.2
7.2A	7.6, 7.8, 7.10
	Hint: Look back at your work for Exer. 3.15 and Exer. 4.3.
7.2B	7.4, 7.15
7.3	7.7, 7.9, 7.16
7.4A	7.5, and from hand-out 7.A1, 7.A2
7.4B	From hand-out: 7.A3, 7.A4
7.5A	7.18, 7.20
	Hint for 7.20: To prove a statement "(not A) implies (not B)," one may prove the equivalent statement "B implies A."
7.5B	7.A5