

		video	slides	pages	quizzes	exercises	computing assignments	notebook assignments		
I: FREQUENT ITEMSET MINING	Problem		partIa	1–16	2–26	Q1.1, Q1.3	Ex1	CA1 Task 1	NA1	
	Algorithms	apriori	partIb	16–23	27–54	Q1.2	Ex2	CA1 Tasks 2–3		
		FP-growth		partIc	24–27	55–89	Q1.5	Ex3		
	Association rules		partId	27–31	90–94	Q1.4	Ex1	CA1 Task 4		
II: CLUSTERING BASICS	Problem		partIIa	1–9	2–21					NA2
	Methods	representative-based, k-means	partIIb	9–22	22–84	Q2.1, Q2.2, Q2.3	Ex4	CA2 Task 1		
		probabilistic model-based		partIIc	23–28	85–113	Q2.1, Q2.2, Q2.3			
	hierarchical divisive		partIIId	29–33	114–135	Q2.1, Q2.2, Q2.3, Q2.4	CA2 Task 2			
	hierarchical agglomerative		partIIe	34–43	136–272	Q2.1, Q2.2, Q2.3, Q2.4	Ex5	CA2 Task 3		
	density-based, DBSCAN		partIIIf	44–48	273–296	Q2.1, Q2.2, Q2.3	Ex4			
	Evaluation	internal validation criteria	partIIg	48–51	297–306	Q2.5	Ex6	CA2 Task 4		
comparing clusters, purity, Gini index, entropy		52–53		307–320	Q2.6	Ex6	CA2 Task 4			
III: CLASSIFICATION BASICS	Problem		1–10		2–15					NA3
	Methods	k nearest neighbors	partIIIb	10–12	16–19	Q3.8				
		decision tree		13–17	20–58	Q3.1, Q3.2, Q3.8	Ex7			
	naive Bayes	perceptron	partIIIc	18–23	59–83	Q3.8	Ex8			
				24–27	84–98	Q3.8				
	hard margin SVM		partIIIId	28–33	99–110	Q3.3, Q3.4, Q3.5, Q3.8	Ex7	CA3 Task 1		
	soft margin SVM			34–37	111–119	Q3.3, Q3.5, Q3.6, Q3.7, Q3.8	Ex7	CA3 Task 1		
	kernel SVM			38–45	120–137	Q3.3, Q3.5, Q3.8	Ex7	CA3 Task 2		
	Evaluation	accuracy, precision, recall	partIIIe	45–49	138–151	Q3.9	Ex9	CA3 Task 1		
		ROC curve		50–51	152–174	CA3 Task 2				
hold-out, cross-validation, bootstrap model comparison		partIIIIf	52–59	175–195	Q3.10, Q3.11	CA3 Task 2				
under-/over-fitting			60–60	196–198	Q3.12					
bias/variance			61–62	199–200	Q3.12					
diagnostic			63–66	201–205	Q3.12					