## Sheet1

## **ALGORITMOS Y COMPLEJIDAD**

UNIDAD	NOMBRE	LINK
1	0. Welcome to the Course	https://www.youtube.com/watch?v=WsSL1x2E75I
	1.1 Introduction	https://www.youtube.com/watch?v=nsywugaGQVY
	1.2.1 Importance of Efficient Algorithms [Pt. 1]	https://www.youtube.com/watch?v=BAr-EzHYM4I
	1.2.2 Importance of Efficient Algorithms [Pt. 2]	https://www.youtube.com/watch?v=MCxDF8-tp8U
	1.3 Analysis of Algorithms	https://www.youtube.com/watch?v=4yv38XSOxS0
	1.4.1 Order [Pt. 1]	https://www.youtube.com/watch?v=49qGo1zaXS4
	1.4.2 Order [Pt. 2]	https://www.youtube.com/watch?v=laf4BQ_Zbjw
	1.5 Complexity Analysis	https://www.youtube.com/watch?v=9D1ereWiEPY
2	2.1 Brute-Froce Approach	https://www.youtube.com/watch?v=QJl6j-j2AzE
	2.2.1 Divide-and-Conquer Approach [Bin. search]	https://www.youtube.com/watch?v=JKs5Mf7wda4
	2.2.2 Divide-and-Conquer Approach [Mergesort]	https://www.youtube.com/watch?v=OhGjRDbPezo
	2.2.3 Divide-and-Conquer Approach [Examples]	https://www.youtube.com/watch?v=RJOQtglgYKk
	2.2.4 Divide-and-Conquer Approach [Quicksort]	https://www.youtube.com/watch?v=ibLLRgPJJXQ
	2.2.5 Divide-and-Conquer Approach [Master met.]	https://www.youtube.com/watch?v=XFJGhgL9unc
	2.2.6 Divide-and-Conquer Approach [Final]	https://www.youtube.com/watch?v=CkBvlkxTrVo
	2.3.1 Dynamic Programming Approach [Bin. coeff.]	https://www.youtube.com/watch?v=jMS-njJtlR8
	2.3.2 Dynamic Programming Approach [Floyd pt. 1]	https://www.youtube.com/watch?v=wSVqmRgTsrs
	2.3.3 Dynamic Programming Approach [Floyd pt. 2]	https://www.youtube.com/watch?v=7cSs74tBVXE
	2.3.4 Dynamic Programming Approach [TSP pt. 1]	https://www.youtube.com/watch?v=OUyTVdWA4IQ
	2.3.5 Dynamic Programming Approach [TSP pt. 2]	https://www.youtube.com/watch?v=8MU34lK4wzs
	2.4.1 Greedy Approach [Introduction]	https://www.youtube.com/watch?v=VvarclOHhX0
	2.4.2 Greedy Approach [Prim]	https://www.youtube.com/watch?v=FXQ4beQdctM
	2.4.3 Greedy Approach [Kruskal]	https://www.youtube.com/watch?v=u_0CGWh2IkA
3	3.1 Introduction to the Theory of Computation	https://www.youtube.com/watch?v=W1ZAPQEgeSc
	3.2.1 Finite Automata [Introduction]	https://www.youtube.com/watch?v=R74u8seZpHA
	3.2.2 Finite Automata [Design]	https://www.youtube.com/watch?v=SzLwybf0crc
	3.2.3 Finite Automata [Nondeterminism]	https://www.youtube.com/watch?v=0NyVzmpCjp4
	3.2.4 Finite Automata [Reg. expressions]	https://www.youtube.com/watch?v=HEYUUVqhfOY
	3.3.1 Context-Free Languages [CFGs]	https://www.youtube.com/watch?v=8AvPDJLmEx4
	3.3.2 Context-Free Languages [PDAs]	https://www.youtube.com/watch?v=mdsCjnowXJY
	3.4.1 Turing Machines [Pt. 1]	https://www.youtube.com/watch?v=XhkxF3u62_U
	3.4.2 Turing Machines [Pt. 2]	https://www.youtube.com/watch?v=Qj16AeF7ecU
	3.5 Decidability	https://www.youtube.com/watch?v=_YW9kAWDkgA
	3.6 Complexity Theory and Intractability	https://www.youtube.com/watch?v=dEhdbrdtSfU

Tiempo	Total
0:23:32	7:34:13
0:47:31	
0:55:29	
1:03:07	
1:23:43	7.54.15
0:38:59	
1:12:14	
1:09:38	
0:59:03	10:33:51
1:29:09	
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0:46:33	
0:52:37	
1:15:20	
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0:38:29	
0:37:53	
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0:59:19	
1:12:46	]
1:21:30	
1:17:11	
	28:35:40

Ex3