

**SUBJECT NAME: Internet Architecture** 

DEGREE IN: TELEMATICS / TELECOMMUNICATION TECHNOLOGIES / MOBILE AND SPATIAL COMMUNICATION

COURSE: 4

PERIOD: 2º

**SYSTEMS / SOUND AND IMAGE** 

WEE	KLY PLA	NNING							
WEEK	SESSION	CONTENT DESCRIPTION	GROUP		Room	Session	WEEKLY STUDENT ASSIGNMENT		
			AGGR	DEAGGR		with two teachers	DESCRIPCIÓN	FACE-TO- FACE HOURS	TOTAL HOURS (max 7h per week)
1	1	Introduction to the course. Interdomain routing.	Х			NO	Do 'IPv4 review' practice with CORE emulation environment	2	4
2	2	Internet business model, pricing and relationships.		Х		NO	Do 'Quagga introduction' practice with CORE emulation environment.  Read [BGP], pps. 1-26, (reference [BGP] = 'BGP', Iljitsch van Beijnum, O'Reilly)  Study 'RIRs and resource assignment' material	2	4
3	3	Introduction to Python	Х			NO	Study python	2	3
4	4	Pandas		X		NO	Read ch 4 [PTDS] ([PTDS]=Principles and Techniques of Data Science, Sam Lau, Joey Gonzalez, Deb Nolan. https://www.textbook.ds100.org/)	2	5
5	5	CDNs. Public and private addresses.	Х			NO	Read pps 61-74 [BGP]	2	5
6	6	<u>Lab</u> : BGP route processing with pandas		Х	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Study pandas	2	4
7	7	Address Market	Х			NO	Study CDN and 'cloud computing' material	2	4
8	8	<u>lab</u> : Analyze connectivity with top-50 most popular web sites		Х	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Study pandas	2	4
9	9	Partial exam, BGP networks Private addressing. Tunnels	Х			NO	Prepare for exam	2	3
10	10	Private addressing, NATs		Х		NO	Study 'address market' material	2	3
11	11	Private addressing, NATs	Х			NO	Study 'problems with NAT' and 'CGNs' material	2	3
12	12	<u>Lab</u> : NAT configuration		Х	4.1B01/4.1B02 (7.0J02/7.0J03)	SI	Knowledge elaboration from experience. Solve NAT exercises	2	5
13	13	Partial exam, IPv4 addressing	Χ			NO	Read RFC 4291: 'IP Version 6 Addressing Architecture'	2	5

		IPv6 addressing							
14	14	IPv6 addressing		X		NO	Solve address assignment exercises	2	5
SUBTOTAL							28 + 57 = 85		
15-		Preparation for evaluation, evaluation						3	
18									
TOTAL							88		