Universidad Carlos III de Madrid

SUBJECT NAME: Internet Architecture		
DEGREE IN: TELEMATICS / TELECOMMUNICATION TECHNOLOGIES/ MOBILE AND SPATIAL COMMUNICATION SYSTEMS / SOUND AND IMAGE	COURSE: 4	PERIOD: 2º

WEEKLY PLANNING

WEEK	SESSION	CONTENT DESCRIPTION	GROUP		Room	Session with two teachers	WEEKLY STUDENT ASSIGNMENT		
			AGGR	DEAGGR			DESCRIPCIÓN	FACE-TO-FACE HOURS	TOTAL HOURS (max 7h per week)
1	1	Introduction to the course. Interdomain routing.		Opt.		NO	Do 'IPv4 review' practice with CORE emulation environment	2	4
2	2	Internet business model, pricing and relationships.		Opt.		NO	Do 'Quagga introduction' practice with CORE emulation environment. Read [BGP], pps. 1-26, (reference [BGP] = 'BGP', Iljitsch van Beijnum, O'Reilly)	2	4
3	3	Introduction to Python		Opt.		NO	Study python	2	3
4	4	Pandas		Opt.		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	Lab: BGP route processing with pandas		Opt.	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Study pandas	2	4
6	6	Lab: Analyze connectivity with top-50 most popular web sites		Opt.	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Study pandas	2	4
7	7	CDNs. **Partial exam**		Opt.		NO	Study pandas	2	5
8	8	Public and private addresses. Public address assignment policies. Address market.		Opt.		NO	Read pps 61-74 [BGP]	2	4
9	9	Lab: Quantitative analysis of assigned addresses		Opt.	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Prepare for lab practice	2	3
10	10	Lab: Quantitative analysis of IPv4 address market		Opt.	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Prepare for lab practice	2	3
11	11	Private addressing. NAT configuration. CGNs		Opt.		NO	Study class material	2	3
12	12	Lab: NAT configuration		Opt.	4.1B01/4.1B02 (7.0J02/7.0J03)	NO	Knowledge elaboration from experience. Solve NAT exercises	2	5
13	13	IPv6 addressing		Opt.		NO	Read RFC 4291: 'IP Version 6 Addressing Architecture'	2	5

WEEK	SESSION								
14	14	IPv6 addressing		Opt.		NO	Solve IPv6 address assignment	2	5
SUBTOTAL								**28 + 57 = 85**	
16-18		Preparation for evaluation, evaluation						3	
TOTAL								**88**	

LABORATORIES (out of regular time slot)								
WEEK	**SESSION**	**CONTENT DESCRIPTION**	**GROUP**		**Room**	**Session with two teachers**	**WEEKLY STUDENT ASSIGNMENT**	
			AGGR	**AGGR**			**DESCRIPCIÓN**	**FACE-TO-FACE HOURS**	**TOTAL HOURS (max 7h per week)**
1	1	<u>Lab</u>: VPNs			4.1B01/4.1B02 (7.0J02/7.0J03)	YES		2	
TOTAL								**90**	