

DENOMINACIÓN ASIGNATURA: Switching		
GRADO: Telematics Engineering, Telecommunication Technologies Engineering, Mobile and	CURSO: 3	CUATRIMESTRE: 2
Space Communications Engineering.		

The course includes 29 sessions distributed through 14 weeks. Labs can be planned in any of the weeks. Each week students will have two sessions, except for one week that will include 3 sessions.

	COURSE WEEKLY SCHEDULE											
WEEK	SE			Mark YES/NO if	WEEKLY PROGRAMMING FOR STUDENT							
	SESSION	DESCRIPTION OF THE SESSION CONTENT	LECTURE	SEMINAR	(computer classroom, audiovisual classroom, etc)	it is a session with two professors	DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)			
1	1	Introduction. Switching Techniques.		х		NO	Reading of class notes.	1,66				
1	2	<b>Packet Switches</b> . Types and architectures. Flow of packets within a router. Slow vs Fast Path. Memory management. Network processing hardware.	X			NO	Review of class lecture. Reading of next class material.	1,66	5			
2	3	<b>Packet Switches</b> . Types of switching fabrics. HOL. Control Algorithm. Exercises		x		NO	Review of class lecture. Prepare exercises.	1,66	5			

2		Packet switches. Route Lookup				NO	Review of class lecture.		
	4	racket switches. Route Lookup				NO		1.66	
2	4		37				Reading of next class material.	1,66	
			Х			110	~		
		Packet switches. Review. Exercises				NO	Review of class lecture.		
3	5						Prepare exercises.	1,66	
				Х					5
		QoS in packet switching. Introduction				NO	Review of class lecture.		5
3	6						Reading of next class material.	1,66	
			Х						
		Route Look-Up Lab. Session 1.			Computer	YES	Reading and comprehension of Lab document.		
4	7				Classroom	120	Preparation.	1,66	
-	'			Х			Treparation.	1,00	
		QoS in packet switching. Introduction. Classification.		Λ		NO	Review of class lecture.		
		Scheduling algorithms. Concept of Max-Min Fair sharing.				NO	Reading of next class material.		5
							Reading of next class material.		5
4	8	GPS, WFQ, DRR.						1,66	
			V						
—			Х	-	C i	VEC			
_	-	Route Look-Up Lab. Session 2.			Computer	YES	Reading and comprehension of Lab document.	1.66	
5	9				Classroom		Preparation.	1,66	
				Х					5
		QoS in packet switching. Review. Traffic models and				NO	Review of class lecture.		-
5	10	shapers: Leaky Bucket, Token Bucket.					Prepare exercises.	1,66	
			Х						
		Interim Exam 1. Packet switches.				NO	Exam preparation.		
6	11							1,66	
Ŭ								1,00	
				Х					5
		QoS in IP: Diffserv vs Intserv.				NO	Review of class lecture.		
6	12						Reading of next class material.	1,66	
			Х						
		QoS. Review. Exercises				NO	Review of class lecture.		
7	13						Prepare exercises.	1,66	
				Х			-		-
		MPLS. Introduction.				NO	Review of class lecture.		5
7	14						Reading of next class material.	1,66	
-	- ·		Х					-,	
		QoS. Review. Exercises		Х		NO	Review of class lecture.		
		A not tre tre the transferrer	1	4 <b>a</b>	1	110		1	1
8	15						Prepare exercises.	1,66	5

(			v	<u> </u>		NO			T1
		MPLS. Forwarding. Control.	Х			NO	Review of class lecture.	1.00	
8	16	1					Reading of next class material.	1,66	
⊢−−−₽	<b>—</b> — І	MPLS. Review. Exercises		X		NO	Review of class lecture.	·	
	17	MPLS. Review. Exercises		Λ		NU		1.66	
9	1 1/ 1	1					Prepare exercises.	1,66	
<del> </del>	<del> </del>		X	+	+	NO	Review of class lecture.	<sup>'</sup>	5
1	1	MPLS. Applications: Traffic Engineering, Fast Re-route,	Λ			no	Reading of next class material.	1	5
9	18	VPN.					Reading of next class material.	1,66	
1	1	VIII.						1	
	<del>ر _ +</del>	1	1	X		NO	Review of class lecture.	· '	1
10	19	MPLS. Review. Exercises					Prepare exercises.	1,66	
	1 - 1	1					Tiepare exclusion.	1,00	
	i — +	Interconnection networks. Basic concepts. Equivalences.	Х	+	+	NO	Review of class lecture.	'	5
10	20	Crossbars. Multi-stage networks full connectivity. Clos					Reading of next class material.	1.66	
10		networks.					1	1,66	
⊢	<b>ب</b> ا						!	<b> </b> '	ļ
1		MPLS Lab: Session 1		Х	Computer	YES	Reading and comprehension of Lab document.	1 '	
11	21	1			Classroom		Preparation.	1,66	
⊢	⊢'	<u> </u>	<u> </u>				!	·	5
1		Interconnection networks. Partial connection networks.	Х			NO	Review of class lecture.	1	-
11	22	Banyan Networks. Sorting and Merging Networks.					Reading of next class material.	1,66	
⊢−−−∔	—┘	ł		v		VEC		ł'	
	1 1	MPLS Lab: Session 2		Х	Computer	YES	Reading and comprehension of Lab document.	1.00	
12	23	MPLS Lad: Session 2			Classroom		Preparation.	1,66	
⊢−−−∔	<u> </u>	Interconnection networks. Partial connection	X			NO	Review of class lecture.	·	- 5
12		rearrangeable networks. Slepian-Duguid, EBNs.	Λ			NU		1.66	
12	24	realitaligeable lictworks. Steplan-Duguid, EDIAs.					Reading of next class material.	1,66	
ił	<del>ا                                     </del>	Interconnection networks. Review. Exercises.		X	+	NO	Review of class lecture.	ŀ'	┼───┤
13	25	Inter connection networks. Acorew. Exercises.		Λ		no	Prepare exercises.	1,66	
15	25	1					Prepare exercises.	1,00	
<del> </del>	ł	Interconnection networks. RBNs. Self-routed Re-	X			NO	Review of class lecture.		5
13		arrangeable Networks: Batcher-Banyan.	11			110	Reading of next class material.	1,66	
	20						Reading of next class material.	1,00	
†	+	Interim Exam 2. QoS+MPLS	+	X		YES	Exam preparation.		<u> </u>
14	27	internii Exani 2. Xoo mii Eo		21		115	Exam proparation.	1,66	
	<b>┌──</b> ┥	Interconnection networks. Review. Exercises.	X	+	+	NO	Review of class lecture.		5
14	28					1,0	Prepare exercises.	1,66	
	1 20 1	1					Tiepare excrements.	1,00	
t	29	Lab Route-LookUp Exam	+	X	Computer	YES	Exam Preparation		<u> </u>
•		Lub Route Boonep Baum					Enterni i reperanon	1,66	2

						Subtotal 1	48,14	72
	Total 1	(Hours of class a	ınd homewc	ork weeks 1-14)	)		120,14	4
15	Delayed classes, doubts and assignments						1	1
16								
17	Preparation of assessment and assessment.						5	10
18								
Subtotal 2						6	11	
Total 2 (Hours of class and homework weeks 15-18)					17			
TOTAL (Total 1 + Total 2. <u>Máximo 180 horas</u> )					137,14			