



<b>COURSE: OPTICAL NETWORKS TECHNOLOGIES</b>		
<b>MASTER: TELECOMMUNICATION ENGINEERING</b>	<b>YEAR: 2020-21</b>	<b>TERM: 1st</b>

WEEKLY PLANNING								
WEEK	SESSION	DESCRIPTION	GROUPS (mark X)		Special room for session (computer classroom, audio-visual classroom...)	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS/ LAB <sup>1</sup>		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	<b>(15 sept)</b> Optical fiber technologies, advantages and disadvantages & principle of operation & Types	2h			Previous reading. Answering questions about background.	2	
2	2	<b>(22 sept)</b> Connectors & passive devices (couplers, splitters, filters, MUX/DEMUX-2 channels, circulator) & Optical link (power budget and time balance)	2h			Exercises	2	4
3	3	<b>(29 sept)</b> Optical link exercises and study cases	2h			Concepts analysis. Review reading and exercise portfolio	2	2
4	4	<b>(6 oct)</b> Active components: amplification, modulation & transceivers and case of study	2h			Concepts analysis. Review reading and exercise portfolio	2	2
5	5	<b>(13 oct)</b> Multiplexing Technologies: Application to WDM networks	2h			Concepts analysis Review reading and exercise portfolio	2	2

6	6	<b>(20 oct)</b> Photonics Integrated Circuits	-			Concepts analysis.	2	2
7	7	<b>(27 oct)</b> Cases of study with the different technologies	2h	x		Practicing	2	2
8	8	<b>(3 nov)</b> Student work group questions/ defense *	2h			Public defense	2	4
9	9	<b>(10 nov)</b> Simulation and measuring techniques in optical networks (Matlab)	2h	x	computer	Manual reading. Report	2	4
10	10	<b>(17 nov)</b> Optical access networks technologies (J Montalvo)	2h			Test or report	2	2
11	11	<b>(24 nov)</b> Simulation and measuring techniques in optical networks	2h	x	computer	Report 13-14 dec VPI	2	8
12	12	<b>(1 dec)</b> Simulation and measuring techniques in optical networks	2h		computer		2	
13	13	<b>(15 dec, to cover student presentation)</b> Impact (Portfolio review) Optical switching: technologies (OADM, OXC..) and case of study/ student work group	2h			Report Review reading and exercise portfolio Concepts analysis/Public defense	2	
14	14	(Any time students can ask specific hours: work group support) Seminar access networks II				Report Review reading and exercise portfolio		

**Subtotal 1**

**26**

**32**

**Total 1** (Hours of class plus student homework hours between weeks 1-7)

**58**

1-7		Tutorials, handing in, etc					10	
8		Assessment				Hands in: portfolio with exercises and reports Final exam: january	3	7

**Subtotal 2**

**3**

**17**

**Total 2** (Hours of class plus student homework hours at week 8)

**20**

<b>TOTAL</b> (Total 1 + Total 2)							<b>78</b>
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\* Can be adjusted depending on number of students and time required