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| COURSE: OPTICAL NETWORKS TECHNOLOGIES | | |
| MASTER: TELECOMMUNICATION ENGINEERING | YEAR: 2017-18 | TERM: 1st |

| WEEKLY PLANNING | | | | | | | | |
|-----------------|---------|--|-----------------|----------------------------|--|--|-------------|-------------------------------|
| WEEK | SESSION | DESCRIPTION | GROUPS (mark X) | | Special room for session (computer classroom, audio-visual classroom...) | WEEKLY PROGRAMMING FOR STUDENT | | |
| | | | LECTURES | SEMINARS/ LAB ¹ | | DESCRIPTION | CLASS HOURS | HOMEWORK HOURS (Max. 7h week) |
| 1 | 1 | (8 sept) Optical fiber technologies, advantages and disadvantages & principle of operation & Types | X | | | Previous reading. Answering questions about background. | 1,6 | |
| 2 | 2 | (15 sept) Connectors & passive devices (couplers, splitters, filters, MUX/DEMUX-2 channels, circulator) & Optical link (power budget and time balance) | x | | | Exercises | 1,6 | 4 |
| 3 | 3 | (22 septiembre) Optical link exercises and study cases | x | | | Concepts analysis. Review reading and exercise portfolio | 1,6 | 2 |
| 4 | 4 | (29 sept) Active components: amplification, modulation & transceivers and case of study | x | | | Concepts analysis. Review reading and exercise portfolio | 1,6 | 2 |
| 5 | 5 | (6 oct) Multiplexing Technologies: Application to WDM networks | x | | | Concepts analysis Review reading and exercise portfolio | 1,6 | 3 |

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| 6 | 6 | (20 oct) Photonics Integrated Circuits | x | | | Concepts analysis. | 1,6 | 2 |
| 7 | 7 | (27 oct Leganés EPS) Simulation and measuring techniques in optical networks | | x | LAB | Manual reading. Report | 1,6 | 2 |
| 8 | 8 | (3 nov) Student work group questions/ defense | x | | | Public defense | 1,6 | 3 |
| 9 | 9 | (10 nov EPS Leganés) Simulation and measuring techniques in optical networks (Matlab) | | x | computer | Manual reading. Report | 1,6 | 3 |
| 10 | 10 | (17 nov) Optical access networks technologies (J Montalvo) | x | | | Test or report | 1,6 | 3 |
| 11 | 11 | (24 nov) Optical switching: technologies (OADM, OXC..) and case of study/ student work group | x | | | Concepts analysis/Public defense | 1,6 | 5 |
| 12 | 12 | (1 dec Leganés EPS) Simulation and measuring techniques in optical networks | | x | computer | Report 30 nov-1 dic Seminario VPI | 1,6 | 5,7 |
| 13 | 13 | (15 dec, to cover student presentation) Impact (students defense and portfolio review) | x | | | Report Review reading and exercise portfolio | 1,6 | |
| 14 | 14 | (Any time students can ask specific hours: work group support) | | | | Report Review reading and exercise portfolio | | |

Subtotal 1 **23,3** **34,7**

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| Total 1 (<i>Hours of class plus student homework hours between weeks 1-7</i>) | 58 |
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| 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**

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| Total 2 (<i>Hours of class plus student homework hours at week 8</i>) | 20 |
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| TOTAL (<i>Total 1 + Total 2</i>) | 78 |
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