

<b>COURSE: Advanced Statistical Data Analysis</b>		
<b>DEGREE_ Management of Information and Digital Contents</b>	<b>YEAR: 4</b>	<b>TERM: 1</b>

WEEKLY PLANNING								
WEEK	SESSION	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM FOR SESION (computer classroom, audio-visual classroom...)	WEEKLY PROGRAMMING FOR STUDENT		
			L E C T U R E S	S E M I N A R S		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	Introduction to advance statistical techniques	X				1,5	3
	2	Introduction to R and R Studio		X	X		1,5	
2	3	Data Types. Importing Data.	X				1,5	3
	4	Loops, Conditionals and Functions		X	X		1,5	
3	5	Exploratory Data Analysis I	X				1,5	3
	6	Ggplot I		X	X		1,5	
4	7	Exploratory Data Analysis II	X				1,5	3
	8	Ggplot II		X	X		1,5	
5	9	Introduction to Supervised Classification. K-Nearest Neighbours.	X				1,5	3
	10	KNN computer practical exercise		X	X		1,5	
6	11	Decision Trees (and Random Forest)	X				1,5	3
	12	DT computer practical exercise		X	X		1,5	
7	13	Avoiding overfitting	X				1,5	3
	14	Overfitting computer practical exercise		X	X		1,5	
8	15	The multivariate Gaussian Distribution and the discriminant t	X				1,5	3

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			L E C T U R E S	S E M I N A R S		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. Estim. 6,5h)
9	16	FDA computer practical exercise		X	X		1,5	
	17	Support Vector Machines	X				1,5	3
	18	SVM computer practical exercise		X	X		1,5	
10	19	Logistic regression	X				1,5	3
	20	Logistic regression computer practical exercise with R-Markdown		X	X		1,5	
11	21	Principal Component Analysis	X				1,5	3
	22	PCA computer practical exercise		X	X		1,5	
12	23	K-Means and hierarchical clustering	X				1,5	3
	24	Clustering computer practical exercise		X	X		1,5	
13	25	Students' presentations	X				1,5	3
	26	Students' presentations		X			1,5	
14	27	Students' presentations	X				1,5	3
	28	Students' presentations		X			1,5	
<b>Subtotal 1</b>							<b>42</b>	<b>42</b>
<b>Total 1 (Hours of class plus student homework)</b>							<b>84</b>	
15		Tutorials, handing in, etc					3,6	-
16		Assessment					3	10
17								
18								
<b>Subtotal 2</b>							<b>6,6</b>	<b>10</b>
<b>Total 2 (Hours of class plus student homework)</b>							<b>17</b>	
<b>TOTAL ( <i>Maximun 150 horas</i> )</b>							<b>101</b>	

**WEEKLY PLANNING**

W E E K	S E S S I O N	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM FOR SESION (computer classroom, audio-visual classroom...)	WEEKLY PROGRAMMING FOR STUDENT		
			L	S		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. Estim. 6,5h)
			E	E				
			C	M				
			U	N				
			R	A				
			E	R				
			S	S				