## uc3m Universidad Carlos III de Madrid

Vicerrectorado de Estudios Apoyo a la docencia y gestión del grado

COURSE: Natural Language Processing							
DEGREE:	YEAR: 4	TERM: 2					

WEEKLY PLANNING											
W E E K	S E S S I O N	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM	WEEKLY PROGRAMMING FOR STUDENT					
			L E C T U R E	S E M I N A R	FOR SESSION (Computer class room, audio- visual class room)	DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 3,25h)			
1	1	Course Introduction	х		Computer Roon	Review material and programming scripts	1,66	3,25			
2	2	Document Preprocessing: tokenization, punctuation removal, stemming, and lemmatization	Х	(	Computer Room	Review material and programming scripts	1,66	3,25			
3	3	Document Preprocessing with the NLTK library		Х	omputer Room	Review material and programming scripts	1,66	3,25			
4	4	Gaussian Mixture Models over TF-IDF encoded documents	Х	(	Computer Room	Review material and programming scripts	1,66	3,25			
5	5	Introduction to Topic models		Х	omputer Room	Review material and programming scripts	1,66	3,25			
6	6	Topic Models with the Gensim library	Х	(	Computer Room	Review material and programming scripts	1,66	3,25			
7	7	Lab Project I		Х	omputer Room	Review material and programming scripts	1,66	3,25			
8	8	Neural Networks and Recurrent Neural Networks	Х	(	Computer Room	Review material and programming scripts	1,66	3,25			
9	9	Training Neural Networks with Pytorch		Х	omputer Room	Review material and programming scripts	1,66	3,25			
10	10	Training word embeddings with Pytorch	Х		Computer Roon	Review material and programming scripts	1,66	3,25			
11	11	Language models with Recurrent Neural Networks		Х	omputer Room	Review material and programming scripts	1,66	3,25			
12	12	Training a Recurrent Neural Network Language Model	Х	(	Computer Room	Review material and programming scripts	1,66	3,25			
13	13	Lab Project I I		Х	omputer Room	Review material and programming scripts	1,66	3,25			
14	14	Sequence to Sequence. Automatic Machine Translation	Х	(	Computer Room	Review material and programming scripts	1,66	3,25			
	15	Additional session: Paper presentations		Х		Review material and programming scripts	1,66	3,25			
						Subtotal 1	25	49			
	Total 1 (Hours of class plus student homework,										
15		Tutorials, handing in, etc					1,8	-			
16 17 18		Assessment					4	4			
Subtotal 2								4			
	<b>Total 2</b> (Hours of class plus student homework,										

TOTAL( Maximun 83 horas )