

(versão em inglês)

<b>Description of individual course units</b> <i>(a preencher, no máximo uma página, por cada unidade curricular)</i>	
•Course title:	Automatic Classification and Kernel Methods
•Course code:	
•Type of course (e.g. major/minor, elective, vd projecto Tuning):	
•Level of course:	Advanced (PhD)
•Year of study:	1
•Semester:	1
•Number of credits allocated (workload based):	6
•Name of lecturer:	Teresa Cristina de Freitas Gonçalves
•Objective of the course (expected learning outcomes and competences to be acquired):	At the end of the course, the student should be familiarized with basic concepts and algorithms used in automatic classification. Given a new classification problem he should be able to characterize it and develop and/or adapt suitable representations and algorithms.
•Prerequisites:	
•Course contents:	The Machine Learning approach to the automatic classification problem. Automatic Classification paradigms and algorithms. Kernel Methods and Support Vector Machines. Space vector and structured kernels.
•Recommended reading:	Machine Learning, T. Mitchell, McGraw-Hill, 1997. Learning with Kernels, B. Scholkopf & A. Smola, The MIT Press, 2002. Kernel Methods for Pattern Analysis, J. Shawe-Taylor & N. Cristianini, Cambridge University Press, 2004.
•Teaching methods:	Theoretical concepts, Scientific papers, experimental work
•Assessment methods:	Experimental work, oral presentation
• Language of instruction:	Portuguese