

Description of individual course units -SIDIS

•Course title:	Distributed information systems / System interoperability and integration
•Course code:	
•Type of course (e.g. major/minor, elective, vd projecto Tuning):	Optional
•Level of course:	Advanced
•Year of study:	
•Semester:	
•Number of credits allocated (workload based):	6
•Name of lecturer:	Luís Arriaga da Cunha
•Objective of the course (expected learning outcomes and competences to be acquired):	The course aims at introducing the students to basic and advanced concepts, mechanisms and tools involved in distributed systems and systems interoperability and integration
•Prerequisites:	
•Course contents:	Concepts and paradigms of distribution/integration; Levels of integration: semantic, architectural, technological; Distributed/integrated architectures ; Distributed/integrated technology; Reference models: virtual db, function based, message based, portal based, wfl based; Fragmentation: interfaces, databases, processes; On the fly access; access via replicas, replica updates; Distributed transactions protocols; Gateways and middleware; Security; Standardization; Heterogeneous systems; legacy systems; Common, reusable services; Hiperdistributed systems; Case studies; Methods of assessing solutions; Frameworks and tools
•Recommended reading:	-Next Generation Application Integration; David S. Linthicum; Addison-Wesley , 2004 -Distributed Systems, Concepts and Design, George Colouris, 2001 -Principles of Distributed DB Systems; Patrik Valduriez, 1999 -Internet search
•Teaching methods:	Based on lectures and practical classes that include exercises and development of small projects.
•Assessment methods:	Development of a Group Project Essay and Presentation of an advanced topic
• Language of instruction:	Portuguese/English