COURSE: DATABASES AND DATA MODELLING		
DEGREE: MANAGEMENT AND TECHNOLOGY	YEAR: 2nd	TERM: 1º

WEEKLY PLANNING									
WEEK	SESSION	TOPIC	TEACHING		Special room for sesion		WEEKLY PROGRAMMING FOR STUDENT		
			lectures	seminars			DESCRIPTION	Class hours	Homework hours
1	1	Introduction to course, objectives, methodology, etc.	**x**				To introduce the course, objectives, learning methodology, evaluation, resources and bibliography. Conocer la asignatura, las competencias y resultados de aprendizaje, el temario, la evaluación, bibliografía y recursos.	1,5	
2	2	Datalife cycle Information management roles	x				To understand the lifecycle of data in enterprises and organizations, information management roles and to show usecases and examples.	1,5	4
2	3	Components of a Database Management System (DBMS)	x				To know the concept of DBMS, its components and interfaces as well as examples of use	1,5	
3	4	Data modelling and use of databases, abstraction, describing data at different levels	x				To study data semantics , mechanisms of abstraction and how to structure information and different levels	1,5	**4**
3	5.	Data modelling and use of databases, abstraction, describing data at different levels		**x**			To study data semantics , mechanisms of abstraction and how to structure information and different levels	1,5	
4	6	Relational data model - Elements	x				Relational data model as a tool to describe the structure of a database	1,5	4
4	7	Relational data model - Elements		x			Relational data model as a tool to describe the structure of a database	1,5	
5	8	Relational data model - Constraints	x				Relational data model as a tool to describe the structure of a database	1,5	4
5	9	Relational data model – Graphical notation		**x**			Relational data model as a tool to describe the structure of a database	1,5	
6	10	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	4
6	11	Relational data model – Design	x				Casos prácticos en diversos dominios de diseño de Bases de Datos	1,5	

7	12	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	4
7	13	Relational data model – Design	**x**				Practical cases of database design in different domains.	1,5	
8	14	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.		4
8	15	Mid term exam and correction		x			Practical cases of database design in different domains.	1,5	
9	16	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	4
9	17	Relational data model – Design		**x**			Practical cases of database design in different domains.	1,5	
10	18	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	4
10	19	Relational data model – Design		**x**			Practical cases of database design in different domains.	1,5	
11	20	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	4
11	21	Use of a declarative query language: SQL	x				Querying a database using SQL	1,5	
12	22	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	4
12	23	Use of a declarative query language: SQL		x			Querying a database using SQL	1,5	
13	24	Lab: Practical work – designing and developing a database			Computer room		Project consisting on designing and developing a database using a commercial DBMS.	1,5	**4**
13	25	Managing structured, semi-structured and unstructured data	**x**				Understanding the complexity of managing structured, semi-structured and unstructured data, available storage and retrieval technologies	1,5	
14	26	Differences between relational and semi-structured data models: SQL and NoSQL databases	**x**				Other models to structure and store data.	1,5	**4**
14	27	Exercises and final exam preparation		**x**			Study and preparation of final exam.	1,5	