IDENTIFYING DATA
(*)Sistemas de información e análises de datos

Subject	(*)Sistemas de información e análises de datos
Code	O03G440V01109
Study programme	(*)Grao en Relacións Internacionais

Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	1st	2nd

Teaching language	English
Department	
Coordinator	Gómez Rodríguez, Alma María
Lecturers	Gómez Rodríguez, Alma María
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Web	
General description	This is an introductory subject which approaches information systems and database management systems. It pretends to show the utility of those tools in a practical environment. It introduces also concepts of data analysis and its utility in the international environment.

Training and Learning Results

Code	
A5	That students develop those learning skills necessary to undertake further studies with a high degree of autonomy.
B2	Gain the ability to work in an international context
C1	Command orally and in writing, of the official languages of the autonomous community
C3	Use at basic level information and communication technologies (TIC) necessary for the practice of the profession and long-life learning
C7	Gain the ability to work in an international context
C8	Appreciate the significante of research and innovation as well as technological advancements in the socioeconomic and cultural progress of our societies
D3	Learn concepts, theories and techniques applied to the analysis of international actors and relations, at universal and regional level, and from both, historical and contemporary, perspectives
D8	Be able to apply the scientifc methodology to the social, political, economic and legal challenged with international elements
D10	Acquire knowledge of the techniques, work methods and analysis of the human, social and legal sciences

Expected results from this subject

Expected results from this subject	Training and Learning Results		
To know how to organize the information for being treated using computer tools.		C3	D8 D10
Know how to build databases to store information		C1 C7	D3
Learn to extract basic information from databases.	A5	C7 C8	
Know and handle the different types of connection to data sources		C1	D3
Know and handle the different tools needed for the process, analysis and search of data patterns	A2 A5	C5 C14 C19 C36	D3 D4 D11

Know and use the different tools for graphic visualisation of data	A2 A4 A5	B9	C18 C19 C20	D3 D4 D7 D9 D11 D14
Know and use colaborative tools	A5	B2		D3

Contents

Topic	
Information Systems	Concept of Information Systems Methodology for Database Design Database Conceptual Design
Database Management Systems	The relational model Creation of databases and introduction of data Consults to database management systems
Information Systems for supporting decision making	Multidimensional databases Data WareHouse) and OLAP Data Mining
Datas Analysis	Techniques and tools for data analysis Dynamic Tables and charts. Data Visualisation: charts and maps. Search of models and patterns in data. Colaborative tools for data analysis

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	15	0	15
Practices through ICT	15	30	45
Collaborative Learning	20.5	50.5	71
Objective questions exam	2	17	19

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	Development of the theoretical contents for all the students, using methods of active learning.
Practices through ICT	Practical application of the theoretical contents in laboratory of computers, using most suitable tools to fix the theoretical knowledge and use it in a real environment.
Collaborative Learning	Realisation of autonomous practical works in groups of students, with the follow-up and guide of the teacher

Personalized assistance

Methodologies	Description
Practices through ICT	The teachers will facilitate guide and support in the classroom for the realisation of the works and exercises proposed
Collaborative Learning	The groups of students will have guide and specific support by the teacher to make it easier the achievement of the learning results.

Assessment

	Description	Qualification	Training and Learning Results			
Practices through ICT	Realisation of practical deliveries of the exercises proposed	40			C1 C7 C8	D3
Collaborative Learning	Realisation of work in groups approaching theoretical and practical concepts.	30	A5	B2	C1 C7 C8	
Objective questions exam	Several proofs may be done to check the comprehension of the theoretical concepts explained in the lessons.	30	A5		C8	

Other comments on the Evaluation

Fraudulent completion of tests or assessment activities, once proven, will directly involve the grade of failure and the

numerical grade of 0 in the subject in the corresponding opportunity, maintaining the grades of the other activities for the next opportunity.

CONTINUOUS EVALUATION CRITERIA FOR THE 1ST EDITION:

The continuous evaluation will include all the teaching methodologies indicated previously. Students who take any of the tests will be considered to be following the continuous assessment, therefore, they must follow the assessment procedure described above.

The grades will be published on the internal platform or official virtual classroom of the University of Vigo with limited access to the teaching staff of the subject and to all enrolled students. If it is necessary, for exceptional reasons, to modify or specify the evaluation methods indicated in the guide, such modifications or precisions will be published in the same telematic support.

Qualification

The evaluation of the assistants will be based on the teaching methodologies described above, with the fixed weighting. In any case, a minimum of 4 is required in each proof to pass the subject. In the event that the minimum grade is not achieved in any of them, the final grade that will be calculated as the lowest of these two values:

- The one obtained by applying the weighting of the evaluation methods

- Fixed value 4.

FINAL EVALUATION CRITERIA FOR 1ST EDITION:

For students who opt for global and non-continuous assessment, a single exam will be conducted in which all subject competencies will be assessed. This test will consist of solving short exercises and answers to short questions and/or multiple choice answers, which will cover both theoretical and practical concepts.

EVALUATION CRITERIA FOR 2ND EDITION AND END OF CAREER:

In the July and end-of-career editions, a single exam will be held in which all subject competencies will be assessed. This test will consist of solving short exercises and answers to short questions and/or multiple choice answers, which will cover both theoretical and practical concepts.

The dates, times and place of the evaluation tests for the different calls will be those indicated in the evaluation test calendar approved by the Faculty Board for the 2023-2024 academic year and corresponding documentation

The tutoring of the teaching staff of the subject can be consulted and/or requested at the following link:

https://www.uvigo.gal/es/universidad/administracion-personal/pdi/alma-maria-gomez-rodriguez

Sources of information
Basic Bibliography
A. Silberschatz; H. Korth; S. Sudarshan, **Database System Concepts.**, 978-84-481-9033-0, 6, McGraw Hill, 2014
Complementary Bibliography
Hector Garcia-Molina, Jeff Ullman, and Jennifer Widom., **Database Systems: The Complete Book**, http://infolab.stanford.edu/~ullman/dscb.html,
Ramez Elmasri, Shamkant B. Navathe, **Fundamentals of Database System**, 978-84-7829-085-7, 1, Pearson Educación, 2015
Elmasri, R.; Navathe, S., **Database systems: models, languages, design, and application programming.**, Addison-Wesley, 2011

Recommendations

Other comments
The sessions of tutoring may be carried out by electronic means (e-mail, videoconferencing, teleteaching platform forums ...) with prior agreement.