



Teaching Guide				
Identifying Data				2017/18
Subject (*)	Information Systems for Business Financial Management	Code	650G01034	
Study programme	Grao en Ciencias Empresariais			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	2nd four-month period	Fourth	Optativa	6
Language	SpanishGalician			
Teaching method	Face-to-face			
Prerequisites				
Department	Empresa			
Coordinador	Aguiar Maragoto, Fernando	E-mail	fernando.aguiar@udc.es	
Lecturers	Aguiar Maragoto, Fernando Fernández Rodríguez, María Teresa López Pampín, José Carlos	E-mail	fernando.aguiar@udc.es m.fernandezr@udc.es c.lpampin@udc.es	
Web	udc.fernandoaguiar.es			
General description	Learn about the functions and components of the Business Information Systems from the point of view of a Graduate in Business Administration			

Study programme competences / results	
Code	Study programme competences / results
A1	CE1 - Aprender a aprender, por exemplo, cómo, cómo, onde novos desenvolvementos persoais son necesarios.
A3	CE3 - Comprender detalles do funcionamento empresarial, tamaño de empresas, rexións xeográficas, sectores empresariais, vinculación con coñecemento e teorías básicas.
A4	CE4 - Comprender a estrutura de linguas estranxeiras e desenvolver un vocabulario, Comprender, ler, falar e escribir nunha lingua estranxeira.
A5	CE5 - Comprender a tecnoloxía nova e existente e o seu impacto para os novos/futuros mercados.
A7	CE7 - Comprender os principios da lei e vincularlos co coñecemento de negocios e xestión.
A9	CE9 - Comprender os principio éticos, identificar as implicacións para as organizacións empresariais, deseño de escenarios.
A10	CE10 - Comprender e utilizar sistemas contables e financeiros.
A14	CE14 - Xestionar as operacións da empresa.
A16	CE16 - Identificar aspectos relacionados e comprender o seu impacto na organización empresarial.
A18	CE18 - Identificar as características dunha organización.
A20	CE20 - Identificar e operar o software adecuado. Diseñar e implementar sistemas de información.
A23	CE23 - Uso de instrumentos para a análise de entornos empresariais.
A24	CE24 - Derivar dos datos información relevante imposible de recoñecer por non profesionais.
B1	CB1 - Que os estudantes demostrasen posuír e comprender coñecementos nunha área de estudo que parte da base da educación secundaria xeneral, e se adoita encontrar a un nivel que, se ben se apoia en libros de texto avanzados, inclúe tamén algúns aspectos que implican coñecementos procedentes da vangarda do seu campo de estudo.
B2	CB2 - Que os estudantes saiban aplicar os seus coñecementos ao seu traballo ou vocación dunha forma profesional e posúan as competencias que adoitan demostrarse por medio da elaboración e defensa de argumentos e a resolución de problemas dentro da súa área de estudo.
B3	CB3 - Que os estudantes teñan a capacidade de reunir e interpretar datos relevantes (normalmente dentro da súa área de estudo) para emitir xuízos que inclúan unha reflexión sobre temas relevantes de índole social, científica ou ética.
B4	CB4 - Que os estudantes poidan transmitir información, ideas, problemas e solucións a un público tanto especializado como non especializado.
B5	CB5 - Que os estudantes desenvolvesen aquelas habilidades de aprendizaxe necesarias para emprender estudos posteriores cun alto grao de autonomía.



B6	CG1 - Que os estudantes formados sexan profesionais versátiles, capacitados tanto de iniciar o seu propio negocio como de desempeñar labores de deseño, planificación, organización, xestión, asesoramento e avaliación nas áreas e departamentos contables, financeiros e fiscais de organizacións empresariais, con especial referencia ás pequenas e medianas empresas.
B7	CG2 - Que os estudantes posúan unha elevada capacitación metodolóxica de xestión e tratamento da información que lles proporcione vantaxes competitivas, non só no seu labor profesional, senón nunha sociedade global en permanente transformación. Para iso, o Grao debe estar dotado dun axeitado nivel de interdisciplinidade, transversalidade e integración nas súas materias.
B8	CG3 - Que os estudantes presten especial atención aos cambios que, tanto en conceptos, coma en metodoloxía ou en aplicacións, implican no mundo empresarial as novas tecnoloxías da información e as comunicacións. Así mesmo deben poder obter e actualizar os coñecementos específicos que teñan como base a aparición de novas leis e regulamentos que afecten ao mundo fiscal, financeiro ou contable.
B9	CG4 - Que os estudantes integren a aprendizaxe na súa vida e no seu labor profesional, a través da metodoloxía de ensino que lles achega o Grao, o cal lles proporciona unha formación básica xeral que servirá como puntal para a formación continua ao longo da vida.
B10	CG5 - Que os estudantes teñan unha perspectiva integral e destreza no manexo dos conceptos, técnicas e ferramentas empregados en cada unha das diferentes áreas funcionais, con especial referencia ás contables, financeiras e fiscais da empresa; así como entender as relacións que existen entre elas e cos obxectivos xerais da organización. Todo iso tendo en conta os principios de sustentabilidade e responsabilidade social das mesmas.
B11	CG6 - Que os estudantes saiban identificar e anticipar oportunidades, asignar recursos, organizar a información, realizar asesoramento fiscal e contable, control orzamentario, xestión de tesouraría, auditorías de contas e temas concursais (suspensións de pagamentos e quebras), tomar decisións en condicións de incerteza e avaliar resultados.
B12	CG7 - Que os estudantes sexan capaces de liderar proxectos nas áreas de valoración da empresa, de dirección estratéxica e financeira; deben poder entender a información contable das empresas co fin de obter conclusións e realizar predicións tanto sobre rendementos coma sobre riscos futuros.
B13	CG8 - Que os estudantes identifiquen os requisitos legais da información financeira aos que a empresa debe enfrontarse.
B14	CG9 - Que os estudantes manifesten respecto aos dereitos fundamentais e de igualdade entre homes e mulleres, o respecto e a promoción dos Dereitos Humanos e os principios de igualdade de oportunidades, non discriminación e accesibilidade universal das persoas con discapacidade.
C1	CT1 - Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.
C2	CT2 - Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.
C3	CT3 - Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.
C4	CT4 - Desenvolverse para o exercicio dunha cidadanía aberta, culta, crítica, comprometida, democrática e solidaria, capaz de analizar a realidade, diagnosticar problemas, formular e implantar solucións baseadas no coñecemento e orientadas ao ben común.
C5	CT5 - Entender a importancia da cultura emprendedora e coñecer os medios ao alcance das persoas emprendedoras.
C6	CT6 - Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.
C7	CT7 - Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.
C8	CT8 - Valorar a importancia que ten a investigación, a innovación e o desenvolvemento tecnolóxico no avance socioeconómico e cultural da sociedade.

## Learning outcomes

Learning outcomes	Study programme competences / results
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Know the role played by the Information Systems in the business organizations. Know also about the components of a Business System Information.	A1	B1	C1	
	A3	B2	C2	
	A4	B3	C3	
	Know the lifecycle of a Business Information System and, more precisely, the role played by its users in the different steps of that lifecycle.	A5	B4	C4
		A7	B5	C5
		A9	B6	C6
		A10	B7	C7
		A14	B8	C8
		A16	B9	
		A18	B10	
		A20	B11	
		A23	B12	
		A24	B13	
		B14		
Practical issues related with the IT applied to the Business Management.	A5	B1	C3	
	A7	B2	C4	
	A9	B3	C7	
	A10	B4	C8	
	A14	B5		
	A16	B6		
	A18	B7		
	A20	B8		
	A24	B9		
		B10		
		B11		
		B12		
		B13		
		B14		
Know and learn the use of common BIE IT Tools, specifically studying those known as "office automation systems".	A5	B1	C3	
	A7	B2	C4	
	A9	B3	C6	
	A10	B4	C7	
	A14	B5		
	A16	B6		
	A20	B7		
		B8		
		B9		
		B10		
		B11		
		B12		
		B13		
		B14		



<p>Know, from a user point of view, the basic tools to design the data model and the procedures subsystem of a Business Information System.</p>	<p>A5 A10 A23</p>	<p>B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14</p>	<p>C3 C6 C7</p>
<p>Show a general view of the Business Information Systems legal framework.</p>	<p>A7</p>	<p>B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14</p>	<p>C4</p>

Contents	
Topic	Sub-topic
<p>1. Introduction to the Business Information System.</p>	<p>1.1 The information as a resource in the business activity. 1.2. The Business Information System. Concept, activities and components. 1.3. The Business Information System and the Business Decision Making Levels. 1.4. The Business Information System and the Business Environment.</p>
<p>2. The Information System Lifecycle.</p>	<p>2.1. Introduction. 2.2. Steps of a information system lifecycle. 2.3. Analysis and design of a Business Information System. Concept, giving particular emphasis to its data model and its procedures.</p>
<p>3. Business Information Systems and IT.</p>	<p>3.1. Basic tools. 3.2. OAS tools. 3.3. Miscelaneous tools: design tools.</p>
<p>4. General view of other relevant issues in a Business Information System.</p>	<p>4.1. The Security in a Business Information System. 4.2. Other relevant issues. 4.3. New trends.</p>
<p>5. General View of the Spanish Business Information System Legal Framework.</p>	<p>5.1. Protection of personal data. 5.2. e-Signature. 5.3. Information Society Services. 5.4. Legal Protection of Software and databases.</p>



Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Guest lecture / keynote speech	A1 A3 A5 A7 A10 A16 A18 A20 A23 B5 B6 C3 C4 C5 C7 C8	17	34	51
Problem solving	A4 A9 A14 A24 B2 B3 B4	25	50	75
Seminar	B7 B8 B9 B10 B11 B12 B13 B14	4	0	4
Mixed objective/subjective test	B1 C1 C2 C6	2	16	18
Personalized attention		2	0	2

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

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	<p>1. Classroom lectures about the theoretical and practical contents of the subject to guide the student in its preparation.</p> <p>2. The time spent in each one of the subject chapters will be proportional to the difficulty level and to the length of those chapters. Thus, some chapters will take more time than others. The teacher is responsible of deciding how many time spend in each one of the subject chapters.</p> <p>3. For preparing those chapters with thw lowest level of difficulty, the student should study the bibliography, although in the lectures the student will be orientated about:</p> <p>a) which are the bibliographic sources to study</p> <p>b) which are the most relevant and interesting issues to reach the learning goals set for the subject.</p> <p>4. Discussion, together with all the workgroups, of the homework of each one of the workgroups. The student can participate:</p> <p>a) by his or her own, after being given the floor; b) after being required by the teacher to participate.</p>
Problem solving	<p>1. Development, exposition and resolution of practical exercises to be made by the student, being part of a workgroup, throughout the course.</p> <p>2. Exercises and readings to be made by the student by his or herself. In subsequent classes:</p> <p>a) a review of the exercises will be made. In this review, the student can participate as stated in the point 3.</p> <p>b) a question time about the readings will be opened.</p> <p>3. The student can participate: a) on his or her own, after being given the floor; b) after being required by the teacher to participate.</p>
Seminar	<p>Small group discussion of the subject contents. Specifically, the discussion of the exercises and readings described in the previous "Problem solving" statement.</p> <p>The student can participate: a) on his or her own, after being given the floor; b) after being required by the teacher to participate.</p>
Mixed objective/subjective test	<p>1. It consists in a theoretical-practical examination test about the subject contents, with short answer questions, long answer questions, practical cases questions, true-false questions, multiple answer questions or any combinations of these types.</p> <p>2. The examination test can be both oral or written. If, 48 hours in advance, nothing is stated in the subject webpage (Moodle), the examination test will be written.</p> <p>3. The examination test will take place in the dates, times and classrooms officially set by the Deanery.</p>



## Personalized attention

Methodologies	Description
Problem solving Seminar Guest lecture / keynote speech	<p>1. In the guest lectures and keynote speeches the student can participate, after being given the floor, to ask, clarify or explain his or her point of view about the issues being dealt with in the moment of his participation.</p> <p>2. In the problem solving classes the student can participate as described in the Methodologies section.</p> <p>3. In the tutorials, the student can ask about the doubts arisen in the preparation of the subject. Although it is not compulsory, the student can ask about the doubts and the data and time -inside the tutorials schedule- in which he or she wants to be received, thus improving the tutorials effectiveness and management.</p> <p>4. If the questions dealt with in the tutorials are of a general interest, from the point of view of the teacher, they could be published in Moodle, together with their answers, to allow other students a better preparation of the subject. The name of the person who made the question will never be published.</p>

## Assessment

Methodologies	Competencies / Results	Description	Qualification
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Problem solving	A4 A9 A14 A24 B2 B3 B4	<p>1. Development of one or more practical use cases, set out by the teacher. In these use cases the students must develop some of the issues related to the contents of the subject. For example: designing a specific Information System or some of its parts, studying of a preexisting Information System and its implications in the business organization, particularly the organizative and legal implications.</p> <p>2. The workgroups will consist of 4-6 students. Exceptionally the teacher can authorise a workgroup with less than 4 or more than 6 members.</p> <p>3. It is essential for the assesment the discussion with the subject teacher or with the workgroup tutor of the practical cases assigned to the workgroup. This is why attending the follow-up meetings is also essential. Never a student could be qualified out of this context, without prejudice of the stated in points 4 and 5. These follow-up meetings will take place both in the guest lectures or keynote speechs, and in the seminars or even inside the problem solving methodology. Thus these three mothodologies will compute inside this 50% of the final qualification.</p> <p>4. For the assesment of this problem solving methodology, the teacher will take into account: a) the work done in the workgroup; b) the discussion referenced in the point 3; c) the class attendance and the effective and active participation in the class; d) the examination tests, when applicable, referenced in point 5.</p> <p>5. The continuous assesment tests are inside this methodology. These tests will be made, at the discretion of the teacher, to check and assess the progress of the student. These test can be both oral or written, with short answer questions, long answer questions, practical exercises, true-false questions, multiple answer questions or any combination of these types.</p> <p>6. The works will be presented, discussed and assessed according to the schedule published in the subject webpage (Moodle).</p> <p>7. Any doubt related with this section shoul be solved according to the continuous assessment criterion.</p>	50
Mixed objective/subjective test	B1 C1 C2 C6	<p>1. It is a unique examination test for each one of the qualification opportunities.</p> <p>2. This examination will follow those criteria stated in the Methodologies section.</p>	50

Assessment comments



The assessment criteria are the same for each one of the assessment opportunities. This means that: 1) the qualification obtained in the "Problem solving" will be taken into account in both assessment opportunities; 2) the examination test related to the mixed objective/subjective test will be qualified on a 5 points basis (the 50% of the final qualification) in both assessment opportunities.

In the advanced summons, and only in this case, a mixed objective/subjective test will be made to assess every competence and content of the subject.

The qualification criteria of each one of the examination tests will be known at the time of the test and will be given with the test formulation.

Those tests that have been not made by the student will be qualified with a zero. The "Not presented" qualification will be given to a student that has participated in less than a 20% of the tests scoring for the final qualification. If a student commits a fraud in any of the tests, he or she will be qualified with a zero in the final qualification.

The only hardware allowed to access to the test classroom is that required to answer the examination test: pencil, ballpen or pen, rubber and a non-programmable electronic calculator.

It is expressly forbidden the access to the test classroom with: a) mobile phones and any other communication or information storage device; b) notes, books or every sort of material not expressly allowed in the examination test call or in the subject webpage (Moodle). Not accomplishing this rule will cause the test to be considered fraudulent, regardless of the effective use of these devices or materials during the length of the examination test.

The student should identify him or herself according to the current rules. For any other question not being dealt with along this guide, the official current rules will be applied.

## Sources of information

Basic	
	<ul style="list-style-type: none"><li>- Schmuller, J. (2000). Aprendiendo UML en 24 horas. Prentice Hall. México</li><li>- Podeswa, H. (2010). UML. Anaya. Madrid</li><li>- Arlow, J. y Neustadt, I. (2006). UML 2. Anaya. Madrid</li><li>- Kimmel, P. (2007). Manual de UML. Guía de aprendizaje. McGraw Hill. México</li><li>- Cardona, J. R.; Bueno Ávila, S. y Bañuls Silvera, V. A. (). Sistemas de Información Empresarial. Casos y supuestos prácticos. GEU</li><li>- Arjonilla Domínguez, S. J. y Medina Garrido. J. A (). La gestión de los sistemas de información en la empresa. Pirámide. Madrid</li><li>- Gómez Vieites, Á.y Suárez Rey, C. (2005). Sistemas de información. RA-MA. Madrid</li><li>- Piattini, M. G.; Calvo-Manzano, J. A.; Cervera, J. y Fernández, L. (). Análisis y diseño detallado de Aplicaciones Informáticas de Gestión. Ra_ma. Madrid</li><li>- Aguiar Maragoto, F.J.; Martínez Fernández, P y Vizcaíno González, M. (). Apuntes de Sistemas de Información. Página web de la asignatura. Moodle</li><li>- Moreno Bonilla, Fernando (2010). Excel 2010 : modelos económicos y financieros. Madrid : Anaya Multimedia</li><li>- Travería, Santiago (2011). Excel 2010 a fondo. Barcelona : Inforbook's</li><li>- Menchén Peñuela, Antonio (2011). Tablas dinámicas en Excel 2010. Madrid: RA-MA</li><li>- Teaching Soft Group (2011). Excel 2010 : curso práctico. Madrid: RA-MA</li><li>- Silberschatz, A.; Korth, H. F. y Sudarshan (). Fundamentos de Bases de Datos. McGraw Hill. Madrid</li><li>- Grau Fernández, L. y López Rodríguez, I. (2001). Problemas de Bases de Datos. Sanz y Torres. Mdrid</li><li>- Almasri, R. y Navate, S. B. (). Sistemas de Bases de Datos. Conceptos fundamentales. Addison-Wesley. México</li><li>- Links en Moodle (). Legislación relacionada con los Sistemas de Información empresarial.</li><li>- Pablos Heredero, C. de et al (2006). Dirección y gestión de los sistemas de información en la empresa (una visión integradora). Madrid: ESIC</li><li>- Giner de la Fuente, F. (2004). Los sistemas de información en la sociedad del conocimiento. Madrid: ESIC</li><li>- Edwars, C. et al (1998). Fundamentos de sistemas de información. Madrid: Prentice Hall</li><li>- Davara Rodríguez, M. A. (1998). Manual de Derecho Informático. Madrid: Ed. THOMSON ? ARANZADI</li><li>- O'Brien, J.A.; J.M. Marakas (2006). Sistemas de Información gerencial. Mexico: McGraw-Hill</li></ul>





<b>Complementary</b>	<ul style="list-style-type: none"><li>- Debrauwer, L. y Karam, N. (2010). UML 2. Practique la modelización. ENI. Barcelona</li><li>- Debrauwer, L. y Van der Heyde, F. (2009). UML 2. Iniciación, ejemplos y ejercicios corregidos. ENI. Barcelona</li><li>- Gane, C. y Sarson, T. (1993). Análisis estructurado de sistemas. El Ateneo. Buenos Aires</li><li>- Piattini Velthuis, M.; Peso Navarro, E. del; y Peso Ruís, M del (2008). Auditoría de Tecnologías y Sistemas de Información. RA-MA. Madrid</li><li>- Areito, J. (2008). Seguridad de la Información. Redes, informática y sistemas de información. Paraninfo. Madrid</li><li>- Piattini Velthuis, M. G.; García Rubio, F. O.; García Rodríguez de Guzmán, I. y Pino, F. (2011). Calidad de los Sistemas de Información. RA-MA. Madrid</li><li>- Fernández Alarcón, V. (2010). Desarrollo de Sistemas de Información. Una metodología basada en el modelado. UPC. Barcelona</li><li>- Yourdon, E. (1989). Análisis Estructurado Moderno. Prentice-Hall. México</li><li>- Alarcón, R. (2000). UML. Diseño orientado a objetos con UML. Eidos. Madrid</li><li>- Rumbaugh, J.; Jacobson, I. y Booch, G. (). El Lenguaje Unificado de Modelado. Manual de referencia. Addison Wesley</li><li>- Fowler, M. y Scott, K. (1997). UML gota a gota. Pearson. México</li></ul>
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### Recommendations

#### Subjects that it is recommended to have taken before

Financial Accounting I/611G02013

#### Subjects that are recommended to be taken simultaneously

#### Subjects that continue the syllabus

Information Systems Design/611G02041

#### Other comments

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