



## Teaching Guide

Identifying Data					2023/24
<b>Subject (*)</b>	Financial Operations Analysis		<b>Code</b>	611G01004	
<b>Study programme</b>	Grao en Economía				
Descriptors					
<b>Cycle</b>	<b>Period</b>	<b>Year</b>	<b>Type</b>	<b>Credits</b>	
Graduate	1st four-month period	First	Basic training	6	
<b>Language</b>	GalicianEnglish				
<b>Teaching method</b>	Face-to-face				
<b>Prerequisites</b>					
<b>Department</b>	Empresa				
<b>Coordinador</b>	Suarez Massa, Maria Isabel Ana		<b>E-mail</b>	isabel.suarez.massa@udc.es	
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<b>Web</b>	udc.fernandoaguilar.es				
<b>General description</b>	<p>The objective of the subject is to know:</p> <p>a) The elements that intervene in financial operations.</p> <p>b) The financial laws most used in financial practice.</p> <p>c) The characteristics, operations and usefulness of the most common financial operations.</p>				

## Study programme competences / results

Code	Study programme competences / results
A1	CE1- Contribuír á boa xestión da asignación de recursos tanto no ámbito privado como no público.
A2	CE2-Identificar e anticipar problemas económicos relevantes en relación coa asignación de recursos en xeral, tanto no ámbito privado como no público.
A3	CE3-Aportar racionalidade á análise e á descripción de calquera aspecto da realidade económica.
A4	CE4-Avaliar consecuencias e distintas alternativas de acción e seleccionar as mellores, dados os obxectivos.
A5	CE5-Emitir informes de asesoramento sobre situación concretas da economía (internacional, nacional ou rexional) ou de sectores da mesma.
A6	CE6-Redactar proxectos de xestión económica a nivel internacional, nacional ou rexional. Integrarse na xestión empresarial.
A7	CE7-Identificar as fontes de información económica relevante e o seu contido.
A8	CE8-Entender as institucións económicas como resultado e aplicación de representacións teóricas ou formais acerca de cómo funciona a economía.
A9	CE9-Derivar dos datos información relevante imposible de recoñecer por non profesionais.
A10	CE10-Usar habitualmente a tecnoloxía da información e as comunicación en todo a seu desempeño profesional.
A11	CE11Leer e comunicarse no ámbito profesional en máis dun idioma, en especial en inglés.
A12	CE12-Aplicar á análise dos problemas criterios profesionais baseados no manexo de instrumentos técnicos.
B1	CB1 - Que os estudantes demostren posuir e comprender coñecementos nun área de estudo que parte da base da educación secundaria xeral, e que soe encontrar nun nivel que, aínda que 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 ó seu traballo ou vocación dun xeito profesional e posúan as competencias que se demostran por medio da elaboración e defensa de argumentos e a resolución de problemas dentro da su entorna de traballo.
B3	CB3 - Que os estudantes teñan a capacidade de reunir e interpretar datos relevantes (normalmente dentro da su 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 se convertan en profesionais capaces de analizar, reflexionar e intervir sobre os diferentes elementos que constitúen un sistema económico
B7	CG2 - Que os estudantes coñezan o funcionamento e as consecuencias dos sistemas económicos, as distintas alternativas de asignación de recursos, acumulación de riqueza e distribución da renda e estean en condicións de contribuír ao seu bo funcionamento e mellora
B8	CG3 -Que os estudantes sexan capaces de identificar e anticipar os problemas económicos relevantes, identificar alternativas de resolución, seleccionar as máis axeitadas e avaliar os resultados aos que conduce.
B9	CG4 -Que os estudantes respecten os dereitos fundamentais e de igualdade de oportunidades, non discriminación e accesibilidade universal das persoas con minusvalidez.
B10	
C1	CT1-Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.
C2	Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.
C3	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	CT2-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	CT3-Entender a importancia da cultura emprendedora e coñecer os medios ao alcance das persoas emprendedoras.
C6	CT4-Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.
C7	CT5-Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.
C8	CT6-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		
Know the principles that govern the operation of financial laws used in practice, along with their application to specific financial operations.	A1		C4
	A2		C5
	A8		
	A9		
	A11		
Know and identify the concept of financial operation, as well as its components, costs and returns. Know how to use these concepts in specific financial operations and, particularly, in the concepts of APR and Amortized Cost.	A3		C1
	A4		
	A8		
	A9		
	A11		
Know, value and develop loan operations, both from the point of view of the lender and the borrower.	A8		C7
	A9		
	A11		
	A12		



<p>Understanding knowledge in the area of ??financial operations that starts from the base of general secondary education, which is supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study.</p> <p>- Know how to apply the knowledge to their work in a professional way and possess the competences that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of ??work.</p> <p>- Know how to gather and interpret relevant data (usually within their study area) to issue judgments that include reflection on relevant issues of a social, scientific or ethical nature.</p> <p>- Transmit information, ideas, problems and solutions to a specialized and non-specialized audience</p> <p>-Develop learning skills necessary to undertake further studies with a high degree of autonomy</p>		<p>B1</p> <p>B2</p> <p>B3</p> <p>B4</p> <p>B5</p>	
<p>Be able to value financial income as well as identify in which economic-financial operations and for what such values ??must be applied. - Know how to perform management, advisory and evaluation tasks in business organizations</p> <p>- Know how to manage the concepts and techniques used in the different functional areas of the company, as well as understand the relationships that exist between them and with the general objectives of the organization.</p> <p>- Know how to make decisions, and, in general, assume managerial tasks.</p>	<p>A5</p> <p>A6</p> <p>A8</p> <p>A9</p> <p>A11</p>		<p>C8</p>
<p>Use the appropriate computer tools to achieve more efficiency in the calculations necessary in the previous sections.</p>	<p>A9</p> <p>A10</p> <p>A11</p>		<p>C6</p>
<p>- Know how to make decisions, and, in general, assume managerial tasks.</p> <p>- Know how to identify and anticipate opportunities, allocate resources, organize information, select and motivate people, make uncertain decisions, achieve the proposed objectives and evaluate results.</p> <p>- Respect the fundamental rights and equality between men and women, respect the promotion of Human Rights and the principles of equal opportunities, non-discrimination and universal accessibility for people with disabilities.</p>	<p>A7</p>	<p>B6</p> <p>B7</p> <p>B8</p> <p>B9</p> <p>B10</p>	<p>C2</p> <p>C3</p>

Contents	
Topic	Sub-topic
Financial laws. General concepts	<ol style="list-style-type: none"> <li>1. Concept of economic good.</li> <li>2. Economic activity and financial activity.</li> <li>3. Concept of financial capital and graphic representation.</li> <li>4. Financial projection: concept and classes.</li> <li>5. Financial laws: concept, characteristics and properties.</li> </ol>
Financial laws used in practice	<ol style="list-style-type: none"> <li>1. Simple and compound capitalization.</li> <li>2. Simple commercial and rational or mathematical discount. Commercial and rational compound discount.</li> <li>3. Continuous capitalization.</li> <li>4. Equivalent interest rates.</li> </ol>



Financial operations	<ol style="list-style-type: none"> <li>1. Concept, classes and components. Financial balance.</li> <li>2. Mathematical reserve or financial balance. Concept and methods of determination.</li> <li>3. Actual costs and returns.</li> <li>4. Practical applications. The APR concept. The effective cost and performance in the valuation rules of the General Accounting Plan. The Amortized Cost table according to the valuation rules of the General Accounting Plan.</li> <li>5. Financial sum and unified capital.</li> </ol>
Income valuation	<ol style="list-style-type: none"> <li>1. Concept, components and classes of income.</li> <li>2. Valuation of income. General method and particular cases.</li> <li>3. Practical applications. Obtaining the Net Present Value or Capital Value of an investment. Capital formation.</li> </ol>
Loan operations	<ol style="list-style-type: none"> <li>1. Concept of loan. Typology of loans.</li> <li>2. The financial balance in loan operations.</li> <li>3. Amortization tables. Concept, classes and obtaining these according to the different typologies.</li> <li>4. Financial value of a loan.</li> <li>5. Commercial characteristics of the loans: the lack and early repayment.</li> <li>6. The calculation of the effective cost for the lender, of the yield for the lender and of the APR and the CER second regulation of the Bank of Spain.</li> </ol>

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student's personal work hours	Total hours
Mixed objective/subjective test	A5 A6 A8 A11 B2 B3 C2	2	11	13
Short answer questions	A5 A6 A8 B2 B3 B4 B5	2	6	8
Problem solving	A7 A8 A11 B2 B1 B3 C3	25	50	75
Seminar	A3 A4 A8 A9 A10 A11 A12 B3 C6	3	6	9
Guest lecture / keynote speech	A1 A2 A5 A6 A8 A11 A12 B6 B7 B8 B10 B9 C1 C4 C5 C6 C7 C8	14	30	44
Personalized attention		1	0	1

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

Methodologies	
Methodologies	Description
Mixed objective/subjective test	<ol style="list-style-type: none"> <li>1. A theoretical-practical exam consists of two contents of the subject, with short questions, questions to be developed, questions about practical subjects, test-type questions (true / false), multiple-choice questions or a combination of two types mentioned.</li> <li>2. Or it can be oral or written. If nothing to the contrary is published on the web page of the subject (Moodle) 48 hours in advance, or it will be written.</li> <li>3. Celebrate nas data, hours and classrooms that or Dean set officially.</li> </ol>



Short answer questions	<ol style="list-style-type: none"><li>1. They consist of an exam on a part of the subject and can be short answers, test type (true / false), multiple choice, questions to develop and questions about practical cases or a combination of them.</li><li>2. The exam can be oral or written. If nothing to the contrary is said in the call for the test in Moodle, the exam will be written. Its duration is between 20 and 60 minutes.</li><li>3. The group can be subdivided to carry out the tests into as many subgroups as the teacher of the subject deems appropriate.</li></ol>
Problem solving	<ol style="list-style-type: none"><li>1. Presentation and solution of practical examples about the theoretical contents.</li><li>2. The practices and examples are interspersed with the theoretical contents in order to facilitate the understanding of the subject.</li><li>3. In the solution of the practical examples the student can intervene: a) the own initiative, after asking for a word b) on the initiative of the teacher, who will expressly request the intervention of the student.</li><li>4. Exercises to be carried out by the student during non-contact hours or autonomous work will be formulated. In subsequent face-to-face hours, a review of the exercises in which the student can intervene will be carried out and the corresponding series of questions will be opened in order to clarify those aspects that the student formulates about the content of these.</li></ol>
Seminar	<p>It is a total of 4 additional hours of teaching to be taught throughout the semester in small groups of students. They will be carried out in three 80-minute sessions in the months of October, November and December respectively through Microsoft Teams or in person and outside the usual class hours on the date and time agreed with the teacher.</p> <p>The objectives of the seminar are:</p> <ol style="list-style-type: none"><li>a) Discuss with the student any theoretical doubt about the part of the subject explained up to that moment</li><li>b) Resolution of exercises of the part of matter explained up to that moment.</li></ol>
Guest lecture / keynote speech	<p>Master Session</p> <ol style="list-style-type: none"><li>1. Presentation in face-to-face classes of the theoretical and practical contents of the subject in order to guide the student in his preparation.</li><li>2. The time dedicated to each of the chapters into which the subject is divided will be proportional to the degree of difficulty in the preparation of these and their length, so that the same time will not be devoted to each of the chapters, but that will delve deeper into some than others. All this, in the opinion of the teacher who teaches the subject.</li><li>3. For the preparation of the chapters with the least difficulty in understanding, the student could be referred to the bibliography, although in this case, in-person classes will be guided about: a) what specific sources are recommended to use b) what aspects are the most relevant and of greatest interest in order to achieve the learning outcomes established for the subject.</li></ol>

## Personalized attention

Methodologies	Description
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Seminar Guest lecture / keynote speech Problem solving	<ol style="list-style-type: none"><li>1. In the master session, the student can intervene, after asking for the floor, to ask, clarify or present their point of view on the subject that is being discussed at the time of their intervention.</li><li>2. In the solution of problems and in the seminars (TGR), which will be carried out in the manner described in the methodology section, the student can intervene as stated in said section.</li><li>3. In the tutoring schedules set by each teacher, the student will be attended, upon request for an appointment and within the limits established by the regulations of teaching dedication of the UDC faculty to clarify those doubts that arise for the preparation of the subject. .</li><li>4. Without mentioning the person who evacuated the query, it can be published in Moodle, along with their response, in order for other students to take advantage of it. All this if the teacher considers it appropriate and of general interest.</li><li>5. Students with recognition of part-time dedication and academic waiver of attendance exemption, will agree at the beginning of the course a specific schedule of tutoring compatible with their dedication. To do this, you must contact the teacher during the first ten days of the semester in which the subject is taught.</li></ol>
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Assessment			
Methodologies	Competencies / Results	Description	Qualification
Short answer questions	A5 A6 A8 B2 B3 B4 B5	<ol style="list-style-type: none"><li>1. Two tests throughout the semester.</li><li>2. The first includes items 1 and 2 and accounts for 25% of the grade in the final evaluation of the first opportunity, the second includes item 3 and accounts for 20% of the final evaluation grade in the first opportunity.</li><li>3. They consist of an exam following the criteria set out in methodologies</li></ol>	45
Mixed objective/subjective test	A5 A6 A8 A11 B2 B3 C2	<ol style="list-style-type: none"><li>1. This is a single test for each of the evaluation opportunities of the call.</li><li>2. At the first opportunity, an examination of items 4 and 5 of the program will be carried out, which will account for 55% of the final evaluation grade. In the second opportunity, an exam of the total subject will be carried out and it supposes 100% of the evaluation note.</li><li>3. These tests will be carried out on the official dates following the criteria set forth in the methodologies.</li><li>4. In test-type exams (true / false) and in multiple-choice tests, poorly answered questions will score negative.</li></ol>	55

Assessment comments
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## A) EVALUATION REGULATIONS:

1. Assessment conditions: It is forbidden to access the examination room with any device that allows communication with the outside and / or the storage of information.

2. Identification of the student: The student will have to accredit his personality according to the valid rule.

## B) TYPES OF QUALIFICATION:

1. Grade of not presented: It corresponds to the student, when it only participates in activities of evaluation that have a weighting inferior to 20% on the final qualification, independently of the qualification reached.

2. Students with recognition of part-time dedication and exemption from attending the exemption from attending:

The evaluation of these students will be governed by the same criteria applied to other students. To take the short answer tests, they must contact their teachers at the beginning of the academic year to agree on a specific schedule compatible with their dedication.

## C) EVALUATION OPPORTUNITIES:

1. First

chance. The evaluation criteria previously mentioned in this section will be applied: two tests throughout the semester and a third on the date of the official exam.

2. Second

chance. There will be a single exam that includes the entire syllabus and will account for 100% of the final grade for this opportunity. The marks obtained in the tests carried out to qualify for the first opportunity will not be taken into account in any case to qualify for this second opportunity.

3. Advance

call. A mixed test will be carried out aimed at evaluating all the competences and contents of the subject. The result obtained in this test will account for 100% of the final grade obtained by the student.

## D) OTHER EVALUATION OBSERVATIONS:

The only utensils that allow access to the test site are the basics to answer the exam: pencil, pen or ballpoint pen, eraser and non-programmable electronic calculator. Access to the examination room with: a) mobile phones and any other device capable of remote communication and / or storage of information is expressly prohibited; b) notes, annotations, books or similar material that was not expressly authorized in the call of the examination or in the web page (Moodle) of the subject. Failure to comply with this rule means that the test is considered to have been performed fraudulently, regardless of whether or not those who have such devices or material on the test site have used them during the test.

Unperformed scores score zero. Those carried out in fraud suppose the qualification of zero points in the announcement being invalidated any qualification that the student could obtain during the course by means of the realization of the activities of evaluation.

The scoring criteria for each of the tests will be announced at the time of the test and will be provided along with the statement of this.



<p><b>Basic</b></p>	<p>- Aguiar Maragoto, F. J. y Martínez Fernández, P. (2009). Apuntes de Análisis de las operaciones financieras.</p> <p>- Joaquín Enríquez Díaz (2018). Matemáticas financieras: a través de supuestos prácticos. A Coruña Repronor SL</p> <p>- J. Enríquez Díaz y R. Pesqueira Sanchez (2020). Matemáticas financieras. Teoría y práctica. Santiago. Andavira</p> <p>BIBLIOGRAFÍA ELECTRÓNICA: Ramón Pintado, T. María del Carmen Lozano Gutiérrez y Ramón Llorens, M. C. (2015). Matemáticas de las operaciones financieras. Universidad Politécnica de Cartagena. <a href="https://elibro-net.accedys.udc.es/es/lc/bibliotecaudc/titulos/44000">https://elibro-net.accedys.udc.es/es/lc/bibliotecaudc/titulos/44000</a> Tomás, N. (2015). Operaciones financieras en diversos escenarios. Ediciones UNL. <a href="https://elibro-net.accedys.udc.es/es/lc/bibliotecaudc/titulos/78509">https://elibro-net.accedys.udc.es/es/lc/bibliotecaudc/titulos/78509</a> Montero Espinosa Curso de matemáticas financieras <a href="https://www.youtube.com/channel/UCiSbnw9sZjvuxbp1s3zelnQ">https://www.youtube.com/channel/UCiSbnw9sZjvuxbp1s3zelnQ</a> David Moreno Muñoz, María Gutiérrez Urtiaga Ramón Pintado, T. María del Carmen Lozano Gutiérrez y Ramón Llorens, M. C. (2015). Matemáticas de las operaciones financieras. Universidad Politécnica de Cartagena. <a href="https://elibro-net.accedys.udc.es/es/lc/bibliotecaudc/titulos/44000">https://elibro-net.accedys.udc.es/es/lc/bibliotecaudc/titulos/44000</a> Giménez Morera, A. Soler Orts, L. y Pascual Plá, B. (2016). Aplicación práctica de las matemáticas de operaciones financieras y la contabilidad. Editorial de la Universidad Politécnica de Valencia. <a href="https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/57422">https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/57422</a> Ramón Pintado, T. Lozano Gutiérrez, M. C. y Ramón Llorens, M. C. (2016). Ejercicios resueltos: matemática de las operaciones financieras. Conceptos básicos. Universidad Politécnica de Cartagena. <a href="https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/44005">https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/44005</a> Andrade López, J. C. (2017). Ejercicios resueltos de matemáticas financieras. Ecoe Ediciones. <a href="https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/70494?page=15">https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/70494?page=15</a> BIBLIOGRAFÍA ELECTRÓNICA (INGLÉS): Lozano Gutiérrez, M. C. y Ramón Llorens, M. C. (2017). Financial mathematics: fundamental concepts. Universidad Politécnica de Cartagena. <a href="https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/44010">https://elibro-net.accedys.udc.es/es/ereader/bibliotecaudc/44010</a></p>
<p><b>Complementary</b></p>	<p>- Pallerola Comamala, J. (2008). Matemática financiera para el nuevo Plan General de Contabilidad. Madrid. Editorial Ra-Ma</p> <p>- González Velasco, M. del C. (2007). Contabilidad Madrid. Editorial Ra-Ma Libro Subir González Velasco, M. del C. 2007 Análisis de las operaciones financieras (Core Syllabus for Actuarial Training in Europe). Pamplona. Editorial Aranzadi, S.A.</p> <p>- Bravo Monroy, R. (2004). 4 Matemáticas financieras. Teoría y ejercicios. Editorial Centro de Estudios Ramón Areces</p> <p>- Cabello González, J. M. (2006). Valoración financiera. Teoría y práctica con Excel. Madrid. Delta Publicaciones</p> <p>- Bonilla Musoles, M., Ivars Escortell, A. y Moya Clemente, I. (2006). Matemática de la operaciones financieras. Teoría y práctica. Madrid. Ed. Thomson</p> <p>O texto de referencia para seguir o curso é o libro de Aguiar Maragoto e Martínez Fernández. O enderezo electrónico para acceder a ela facilitarase ao alumno o día da presentación da materia. O resto do material recomendado está accesible de forma virtual ou na biblioteca da facultade.</p>

## 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

Investment Theory/611G02020

Finance Theory/611G02021

### Other comments





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