

**COURSE DATA****Data Subject**

<b>Code</b>	35950
<b>Name</b>	Risk and insurance
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2023 - 2024

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1315 - Degree in Finance and Accounting	Faculty of Economics	3	Second term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1315 - Degree in Finance and Accounting	17 - Banking and insurance	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
SUSO LOPEZ, MARIA JULIA	113 - Financial and Actuarial Economics
VENTURA MARCO, MANUEL	113 - Financial and Actuarial Economics

**SUMMARY**

*Risk and Insurance* is a semiannual compulsory subject that is taught in the second term of third year of the Degree in Finance and Accounting.

In summary, the contents of the subject are: risk identification, evaluation and treatment. Characteristics and classes of insurable risks. The insurance technique. Insurance classes: life insurance and non-life insurance. The insurance company: pricing and solvency. The insurance sector: regulation and supervision. Intermediaries and distribution channels. The *Consorcio de Compensación de Seguros*.

**PREVIOUS KNOWLEDGE**



### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

Knowledge of Financial Economics, Statistics and Computer Science (Microsoft Excel).

## OUTCOMES

### 1315 - Degree in Finance and Accounting

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## LEARNING OUTCOMES

Recognition and analysis of the insurance technique basis: behaviours and exposures to the risk of people and entities, classes of risks and branches of insurance, pricing, solvency and supervision.

## DESCRIPTION OF CONTENTS

### 1. LESSON I. APPROACH TO RISK CONCEPT AND ITS TREATMENT

- 1.1. Nature and definition of risk.
- 1.2. Individual attitudes towards risk.
- 1.3. General classification of risks.
- 1.4. Risk management in the enterprise: the ERM approach.
- 1.5. Insurable risks.
- 1.6. Some useful statistics and spreadsheet exercises.

### 2. LESSON II. THE RISK IN THE INSURANCE PROCESS

- 2.1. The basic principles of insurance.
- 2.2. Insurance classification according to the type of risk.
- 2.3. Segmentation, selection and monitoring of insurable risks.
- 2.4. The price of the insurance: technical principles. The technical basis.
- 2.5. The premium as a market price.
- 2.6. Intermediaries and distribution channels.
- 2.7. The surcharge of the "Consortio de Compensación de Seguros" and other concepts external to the rate premium: the quittance.
- 2.8. Spreadsheet exercises.

**3. LESSON III. GENERAL INSURANCE (NON-LIFE INSURANCE)**

- 3.1 The Non-Life Insurance branches.
- 3.2 Automobile insurance.
- 3.3 Automobile insurance pricing.
- 3.4 Multi-risk insurance.
- 3.5 Health insurance.
- 3.6 Insurance in the business sector.
- 3.7 Spreadsheet exercises.

**4. LESSON IV. LIFE INSURANCE**

- 4.1 Modalities of Life Insurance.
- 4.2 The technical basis of Life Insurance.
- 4.3 Valuation of capital in case of survival: the actuarial discount factor.
- 4.4 Introduction to the actuarial valuation of annuities.
- 4.5 Death and mixed insurance.
- 4.6 The Technical Account of Life Insurance.
- 4.7 Spreadsheet Exercises.

**5. LESSON V. INTRODUCTION TO SOLVENCY MODELS**

- 5.1 The global management of an insurance company.
- 5.2 Public control of solvency.
- 5.3 Categories of assessable risks in Solvency II.
- 5.4 A basic model of risk theory.
- 5.5 Spreadsheet exercises.

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Computer classroom practice	15,00	100
Classroom practices	15,00	100
Attendance at events and external activities	5,00	0
Study and independent work	25,00	0
Readings supplementary material	10,00	0
Preparation of evaluation activities	20,00	0
Preparing lectures	15,00	0
Preparation of practical classes and problem	15,00	0
<b>TOTAL</b>	<b>150,00</b>	



## TEACHING METHODOLOGY

- Theory: master class with active participation of students.
- Practical classes with approach, resolution and revision of exercises, both on blackboard and on computer. The active participation of students is essential

## EVALUATION

- A written exam (or synthesis test) at the end of the module, which will consist of both theoretical questions and problems (70%).
- Continuous evaluation of students, based on their attendance to class, participation and degree of involvement in both practical activities and in-person training activities (30%). All these activities will be considered non-recoverable.

The final grade is obtained from the weighted average of the marks of each part of the evaluation, as long as has been passed the part corresponding to the synthesis test or examination officially called by the Faculty of Economics. In case the written test or exam is not passed, the final grade will be the weighted sum of the test score and the continuous assessment, not exceeding a maximum of 4.5.

## REFERENCES

### Basic

- Guardiola Lozano, A. (2001): Manual de Introducción al Seguro. Ed. MAPFRE.
- Hossack, I.B.; Pollard, J.H. y Zehnwrith (2001): Introducción a la estadística con aplicaciones a los seguros generales. Ed. MAPFRE.
- Instituto Santalucía (2018): La planificación financiera para la jubilación. Ed. AFI, Junio 2018.
- Moreno, R.; Gómez, O.; y Trigo, E. (2005): Matemática de los seguros de vida. Ed. PIRÁMIDE.
- UNESPA (2015): Solvencia II. De un vistazo. Departamento de Análisis y estudios.

### Additional

- Alcántara Grados, F. (2005): El seguro de riesgos catastróficos: reaseguro tradicional y transferencia alternativa de riesgos. Ed. MAPFRE, Primera Parte.
- Dickson, D.C.M. (2005): Insurance Risk and Ruin. Ed. Cambridge University Press.
- Doff, R. (2007). Risk Management for Insurers: Risk Control, Economic Capital and Solvency II. Ed. Risk Books.
- International Actuarial Association (2011): Un marco global para la evaluación de la solvencia del asegurador. Informe del Grupo de Trabajo para la Evaluación de la Solvencia del Asegurador.



- Olivieri, A. y Pitacco, E. (2015): Introduction to Insurance Mathematics. Ed. Springer.
- PricewaterhouseCoopers (2005): Gestión de Riesgos Corporativos-Marco Integrado. Técnicas de Aplicación. Committee of Sponsoring Organizations of the Treadway Commission (COSO).
- Redja, G.E. (2011): Principles of Risk Management and Insurance. Ed. Pearson. Eleventh Edition.
- Sweeting, P. (2017): Financial Enterprise Risk Management. International Series on Actuarial Science. Ed. Cambridge University Press.
- Vaughan, E.J. y Vaughan, T. (2008): Fundamentals of Risk and Insurance. Ed. John Wiley & Sons, Tenth Edition.
- Pérez Torres, J.L. (2011): Fundamentos del Seguro. Ed. UMESER S.A.
- Tortella-Casares, G. [Director] (2014): Historia del seguro en España. Ed. FUNDACIÓN MAPFRE.
- Zweifel, P. y Eisen, R. (2012): Insurance Economics. Ed. Springer.
- REFERENCIAS WEB:  
[www.actuarios.org](http://www.actuarios.org)  
[www.dgsfp.mineco.es](http://www.dgsfp.mineco.es)  
[www.eiopa.europa.eu](http://www.eiopa.europa.eu)  
[www.conorseguros.es](http://www.conorseguros.es)  
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[www.fundacionmapfre.org/fundacion/es\\_es/publicaciones/destacadas/seguros.jsp](http://www.fundacionmapfre.org/fundacion/es_es/publicaciones/destacadas/seguros.jsp)  
[www.institutosantalucia.es](http://www.institutosantalucia.es)