

**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>	2021 - 2022

**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>
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).

## **COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)**

### **1315 - Degree in Finance and Accounting**

- CM4FYC 11 Capacidad para identificar y evaluar las diferentes clases de riesgos que afectan a las personas y a los bienes y relacionarlos con los seguros que se pueden utilizar para su cobertura.
- CM4FYC 12 Conocer los principios de la técnica aseguradora y la aplicación y supervisión de los modelos de solvencia.

## **LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)**

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 practical applications and 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	10,00	0
Study and independent work	25,00	0
Readings supplementary material	10,00	0
Preparation of evaluation activities	25,00	0
Preparing lectures	5,00	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 (60%).
- Continuous evaluation of students, based on their attendance to class, participation and degree of involvement in both practical activities and in-person training activities (40%). 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.
- REFERÈNCIES/REFERENCIAS/REFERENCES WEB:
  - 1) [www.actuarios.org](http://www.actuarios.org)
  - 2) [www.consorseguros.es](http://www.consorseguros.es)
  - 3) [www.dgsfp.mineco.es](http://www.dgsfp.mineco.es)
  - 4) [https://www.fundacionmapfre.org/fundacion/es\\_es/publicaciones/destacadas/seguros.jsp](https://www.fundacionmapfre.org/fundacion/es_es/publicaciones/destacadas/seguros.jsp)
  - 5) [www.icea.es/es-ES](http://www.icea.es/es-ES)
  - 6) [www.inese.es](http://www.inese.es)
  - 7) [www.unespa.es](http://www.unespa.es)
  - 8) [www.institutosantalucia.es](http://www.institutosantalucia.es)

## **ADDENDUM COVID-19**

**This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council**

If at some point, over the course of 2020-2021, for justified and overdue reasons, the teaching should not be carried out as planned, the responsible teachers will communicate through the Aula Virtual of the subject (virtual classroom platform) more specific and detailed information on the changes that it would be appropriate to make. More specifically, however:

### **1. Content.**

The contents are initially relegated to the teaching guide.

### **2. Work volume and time planning of teaching.**

The weight of the various activities that add up to the hours of dedication in ECTS credits marked in the initial teaching guide is maintained.





### 3. Teacher Methodology.

The modality of classes for students will depend on the social and health conditions and the restrictions established by the competent authorities.

In the case of **online teaching**, classes will be given by videoconference, preferably synchronous, using Blackboard Collaborate, Teams, Skype or the tool that the lecturer considers appropriate to optimize the student's teaching-learning process during the scheduled program sessions, **which remain the same days and times**.

In the case of **blended teaching**, the students will have to access the classroom in alternate weeks according to the initial of their last name (A-M or L-Z). The classes will be broadcast so that the students will have face-to-face teaching one week, and the next week they will follow the classes in streaming.

### 4. Evaluation.

a) **Continuous evaluation:** it does not change the weight, nor the way to perform it.

b) **Final assessment test**, in case **it cannot be presential**: It will preferably be based on a written examination, but it can be oral if necessary, with theoretical-practic questions.

At the scheduled time for the start of the exam will be uploaded to the Aula Virtual. The duration of the exam will be limited and students will have to upload to the task assigned to the Aula Virtual a file or files with the answers done in a handwritten way, by scanning or photographing with good resolution, so it is readable and with the reasoning and explanation of the response given to the practical exercises answered.

### 5. Bibliography.

The bibliography initially collected in the teaching guide is maintained.