

**COURSE DATA****DATA SUBJECT****Code:** 43789**Name:** Welfare benefits and health and long-term care insurance**Cycle:** Master's Degree**ECTS Credits:** 3**Academic year:** 2026-27**STUDY (S)**

Degree	Center	Acad. year	Period
2171 - Master's Degree in Actuarial and Financial Sciences	Facultat d'Economia	2	First quarter

**SUBJECT-MATTER**

Degree	Subject-matter	Character
2171 - Master's Degree in Actuarial and Financial Sciences	Life insurance, health insurance and pensions	COMPULSORY

**COORDINATION**

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**SUMMARY**

The course "Benefits and Health and Long-Term Care Insurance" is scheduled for the first semester of the second year and is taken after students have had an initial introduction to the insurance field during the first year and have already studied one of its areas, Non-Life Insurance.

In this way, once students have acquired the necessary mathematical and statistical foundations and are familiar with the general context, they are prepared to tackle one of the specific areas of the Master's program: Benefits and Health and Long-Term Care Insurance.

Although students already have some knowledge of insurance from the first year of the Master's, the area related to life insurance is still largely unfamiliar to them.

The course "Benefits and Health and Long-Term Care Insurance" is naturally complemented by two other courses: "Life Insurance" and "Pension Plans and Systems," as there are numerous links between them.

**PREVIOUS KNOWLEDGE**

**RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

**OTHER REQUIREMENTS**

To successfully learn the contents of this module, students should be familiar with the basics of Financial Economics and Introduction to Risk, as well as have basic skills in using Excel spreadsheets.

**COMPETENCES / LEARNING OUTCOMES****2171 - Master's Degree in Actuarial and Financial Sciences**

Conocer y ser capaces de valorar los distintos instrumentos públicos y privados utilizados en el entorno de la previsión social.

Poseer las habilidades suficientes para participar en una conversación de negocios y estar capacitado para leer literatura actuarial al menos en dos de los idiomas oficiales de la Unión Europea.

Saber realizar una gestión integral del riesgo y alcanzar los conocimientos suficientes para dar respuesta a los riesgos actuales y a los que puedan surgir resultado del cambiante entorno económico, financiero y social, con vistas a dirigir y gestionar todo tipo de entidades financieras y aseguradoras.

Ser capaces de aplicar los criterios y principios de planificación y control actuarial, necesarios para el correcto funcionamiento de las operaciones que, en cada momento, ofrezcan las entidades de seguros, financieras o cualesquiera otras que impliquen transferencia y cobertura de riesgos.

Ser capaces de construir modelos adecuados al entorno económico empresarial a partir de las posibilidades que ofrecen las modernas tecnologías de la información y de la computación.

Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

Students should demonstrate self-directed learning skills for continued academic growth.

**DESCRIPTION OF CONTENTS****TOPIC 1: SURVIVORSHIP BENEFITS AND INSURANCE (WIDOWHOOD, ORPHANHOOD, AND FAMILY**



**BENEFITS)**

1. Definition and analysis from a public perspective
2. The specific case of Social Security in Spain
  - 2.1. Widowhood
  - 2.2. Orphanhood
  - 2.3. Family benefits
3. Survivorship annuities
  - 3.1. The general case
  - 3.2. Survivorship annuities applied to groups
4. Death and survivorship benefits
  - 4.1. Widowhood
  - 4.2. Orphanhood
  - 4.3. Family benefits
5. Survivorship insurance
6. Survivorship benefits and their link to private pension plans
7. Bibliography
8. Practical exercises

**TOPIC 2: DISABILITY BENEFITS AND INSURANCE**

1. Definition and analysis from a public perspective
2. The specific case of Social Security in Spain
3. Determination of the main probabilities of disability
4. Other probabilities related to disability
5. Disability annuities
6. Disability insurance
7. Return to work
8. Disability and its link to private pension plans
9. Bibliography
10. Practical exercises

**TOPIC 3: LONG-TERM CARE BENEFITS AND INSURANCE**

1. Introduction
2. Socio-demographic determinants of dependency, main predictive factors, and sources for the demographic study of dependency in Spain
3. Forms of long-term care insurance
4. Basic legislation on dependency in Spain and catalog of dependency services
5. Actuarial aspects of dependency (insurance and annuities)
  - 5.1. Transition matrix
  - 5.2. Annual transition probabilities in the three-state dependency model
  - 5.3. Life expectancy and health status
  - 5.4. Dependency tables
  - 5.5. Dependency annuities and insurance with a single degree of dependency
  - 5.6. Dependency annuities with three degrees of dependency



- 5.7. Survivorship annuities for a self-employed person aggravated by dependency
6. Elements of a long-term care insurance contract
7. Taxation of long-term care insurance
8. Bibliography
9. Examples and practical exercises

**TOPIC 4: NOTIONAL ACCOUNTS, ACTUARIAL BALANCES, AND OTHER CONTINGENCIES**

1. Retirement, disability, and minimum pension
2. Retirement, dependency, and minimum pension
3. References

**TOPIC 5: HEALTH BENEFITS AND HEALTH INSURANCE**

1. Introduction
2. Social Security healthcare
  - 2.1. Beneficiaries / protected situations
  - 2.2. Commencement of entitlement / duration / termination
  - 2.3. Content
  - 2.4. Some issues
3. Health/illness insurance
  - 3.1. Origins of health insurance
  - 3.2. Description of the insurance
  - 3.3. Types of coverage
  - 3.4. Reasons for purchasing
  - 3.5. Types of insurance
  - 3.6. Elements determining the premium price
4. Underwriting and risk selection in health insurance
  - 4.1. Health insurance underwriting
    - 4.1.1. Insurance application
    - 4.1.2. Health questionnaire
    - 4.1.3. Medical report
  - 4.2. Risk selection
    - 4.2.1. Technical risk
    - 4.2.2. Medical risk
5. Fraud in health insurance
6. Genetics and health insurance
7. Taxation of health/illness insurance
8. Bibliography

**WORKLOAD****PRESENCIAL ACTIVITIES**

Activity	Hours
Theory	15,00



Classroom practices	15,00
<b>Total hours</b>	<b>30,00</b>

### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	2,00
Individual or group project	8,00
Independent study and work	19,00
Preparation of lessons	14,00
Preparation for assessment activities	2,00
Resolution of case studies	0,00
<b>Total hours</b>	<b>45,00</b>

### TEACHING METHODOLOGY

During the course, the program content will be covered by alternating theoretical material with exercises and practical case studies. Various assignments will be proposed, which students must submit in the manner and by the deadlines specified throughout the course. To this end, all available resources (whiteboard, transparencies, projector, computer, etc.) will be used as needed and as deemed most appropriate to achieve the course objectives.

In general, theoretical classes will be delivered using the lecture method, where the instructor will highlight the key aspects of each topic and guide students; study through the relevant bibliography, which must be consulted to complete and deepen understanding of the subject.

Practical classes will involve presenting questions and exercises applied to the economic, financial, and actuarial fields, which students must solve, including, where appropriate, the necessary modeling and discussion of the solution.

Some practical classes will be supported by computer tools, so that students can gain up-to-date experience with software packages and techniques that are increasingly used in all the aforementioned areas.

In practical classes, questions and problems previously introduced in the theoretical sessions will be solved, except in certain cases where, due to the practical nature of the topic, the material will be taught only in the practical session.

Group work will be carried out whenever possible.

Teaching materials will be available through the virtual classroom at <http://aulavirtual.uv.es>

### EVALUATION

The course will be assessed based on:



- A written exam, which may include both theoretical questions and problems and/or real cases. It could also be entirely multiple-choice and/or include some multiple-choice questions.
- The activities carried out by the student during the course, such as preparing assignments, solving exercises or problems, taking quizzes, submitting reports, oral presentations, etc.

The written exam will account for 50% of the final grade, and continuous assessment will make up the remaining 50%. In any case, a minimum grade of 5 out of 10 is required to pass the course, and the written exam must reach a minimum score (5 points). The final grade will only be the average of the exam and continuous assessment if the minimum score is achieved in the final exam.

To be assessed, activities and assignments must be submitted on the date and in the manner specified for each.

Notes:

- Grades obtained from assignments and continuous assessment during the course will be retained if the student does not pass the course in the first sitting (it will not be possible to submit missed or failed assignments for this sitting after the course has ended).
- The same assessment criteria will apply in the second sitting as in the first.

## REFERENCES

Vidal Meliá, C. (2025): Course notes. Mimeograph. The updated course notes are available in the virtual classroom. Each topic includes its reference bibliography.