Statistics

Code: 103992
ECTS Credits: 6

Degree	Type	Year	Semester
2502501 Prevention and Integral Safety and Security	FB	1	1

Contact

Name: Jose Luis Masson Guerra

Email: joseluis.masson@uab.cat

Use of Languages

Principal working language: spanish (spa)

Some groups entirely in English: No

Some groups entirely in Catalan: No

Some groups entirely in Spanish: No

Prerequisites

This subject does not have any specific requirements

Objectives and Contextualisation

Learn the basic statistical theoretical basis for the analysis and comprehension of information prepared by the competent bodies in the field of security and by statistical observatories.

Master the formulation necessary to prepare and adjust for themselves the statistical information to their own specific environments, both public or private activity, where they develop their function in the future.

Have the ability to infer and make forecasts and forecasts and know the relevant variables and their management in scenarios of risk, uncertainty and competition.

Use basic tools and computer programs, complementary to the content of the subject.

Competences

- Apply specific software tools to solve problems specific to security.
- Be able to communicate efficiently in English, both orally and in writing.
- Carry out scientific thinking and critical reasoning in matters of preventions and security.
- Contribute to decisions on investment in prevention and security.
- Know how to communicate and transmit ideas and result efficiently in a professional and non-expert environment, both orally and in writing.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Plan and coordinate the resources of the three large subsystems that interact in questions of security: people, technology and infrastructures.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Use the capacity for analysis and synthesis to solve problems.
- Work and learn autonomously.
- Work in institutional and interprofessional networks.

Learning Outcomes

1. Analyse indicators of sustainability for academic and professional activities in the area including social, economic and environmental considerations.
2. Apply the basis of statistics, economics and finance, in the applicable legal framework and the informatics necessary to undertake prevention and security.
3. Apply tools and develop specific software for solving the problems that are particular to security, the environment, quality and social corporate responsibility.
4. Be able to communicate efficiently in English, both orally and in writing.
5. Carry out scientific thinking and critical reasoning in matters of preventions and security.
6. Design a project applied to integral security and prevention in an organisation.
7. Identify the social, economic and environmental implications of the academic and professional activities in the field of self-knowledge.
8. Know how to communicate and transmit ideas and result efficiently in a professional and non-expert environment, both orally and in writing.
9. Propose new ways to measure success or failure when implementing ground-breaking proposals or ideas.
10. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
11. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
12. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
13. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
14. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
15. Use the capacity for analysis and synthesis to solve problems.
16. Weigh up the risks and benefits of both your own proposals for improvement and those of others.
17. Work and learn autonomously.
18. Work in institutional and interprofessional networks.

Content

1. Introduction

   1.1. Concept of Statistics

   1.2. Statistical sources

   1.3. Statistical data applied to risks' prevention

   1.4. Statistics in the decision making

2. Statistical observation

Methodology

Students must study the teaching units provided, which are enough to progress in this subject. Recommended bibliography should be considered as a helping tool. There will be several virtual sessions that will allow the student to review the content that he/she has been individually working on.

They also must deliver the PECs previously arranged in the calendar.

For the completion of PEC 0 it is required to research and collect data from, among others, the recommended.

Tutorials with the teaching staff will be arranged by email, upon request.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Evaluation	4	0.16	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15
Theoretical classes with ICT support to solve doubts	12	0.48	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15
Type: Supervised			
Discussion forums, resolution of practical cases and tests. Tutorials and videoconference sessions	24	0.96	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15
Type: Autonomous			
Resolution of practical cases. Realization of works. Personal study	110	4.4	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15

Assessment

1-Individual theoretical-practical test

Final test to do individually, in any format: test, development or resolution of exercises. This test will be required to pass the subject and will be done at the scheduled date and time. Under the criteria of continuous assessment, this test will weight in the final grade, as established in the table, of 50%.

Not passing the subject, and according to the criteria of the continuous assessment, a re-take test is offered on the scheduled date and time. The test will gather the entire content of the program. In order to do this re-take, there must be evidence of evaluation during the course of at least 2/3 of the content used to assess the final grade. However, after the re-take, the final grade will be no more than 5-Pass.

If you need to change the date of any test, the petition must be submitted by filling out the document you will find in the moodle EPSI Tutorial space.

["If the student makes any irregularities that may lead to a significant variation in the qualification of an evaluation act, this evaluation act will be classified with a 0, regardless of the disciplinary process that can be instructed. produce different irregularities in the acts of evaluation of the same subject, the final grade of this subject will be 0 ".]

2 -Online individual theoretical and practical tests - periodic exercises

Individual resolution of tests, to be delivered periodically. The number of these tests will be determined at the beginning. Their evaluation will be based on:
- Timely delivery of the proposed PECs. It is required to deliver at least 2/3 of them. Those not delivered will be graded as 0 (zero)
- Quality of the exhibitions and answers
- Understanding and mastery of the subject
- Additional contribution that deepens the subject (penalizing plagiarism)
- Ability to express and summarize
- Do not copy literal texts of the teaching material provided

They can be done by sharing knowledge with other members of the subject but the delivery will be individual. The delivery will be virtual within the arranged deadlines. The average in the grades of these tests (0 to 10) will have a weight in the final grade of the subject of 25%.

3 - Long-term assignment

Long-term evaluation serves as a recopilatory work of the subject. Its topic and content will be specified at the beginning of the course. It will be evaluated based on:
- The quality of content and analysis, as well as the orderly and attractive presentation
- The use of the statistics studied in the course
- The variety and actuality of used sources
- The ability to analyze the information
- The ability to predict and extrapolate, given the analysis
- Analysis and conclusions of the work carried out

The presentation of the work is required to qualify the subject. Working on it is individual. You can not share your elaboration with other members of the course.

Important! The grading will be from 0 to 10, with a weigth in the final grade of the subject of 25%.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Final project	25%	0	0	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15
Understanding and correct use of concepts and formulas or applications in the realization and delivery of the works and exercises required on-line.	25%	0	0	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15
Written or oral tests to assess the knowledge acquired by the student	50%	0	0	1, 3, 2, 4, 8, 5, 6, 7, 16, 9, 14, 13, 12, 10, 11, 18, 17, 15

Bibliography

Paul g. Hoel. Introducción a la Estadística Matemática

Paul g. Hoel, Raymond J. Jessen.- Estadística Básica para Negocios y Economía

Angel Alcaide, Nelson Alvarez .- Econometría, Modelos Deterministas y Estocásticos.

Sánchez Fdez. J.- Introducción a la Estadística Empresarial

Jorge Galbiati. .- Estadistica Asistida por Ordenador

Vladimir Zaiats, M.Luz Calle i Rosa Presas.- Probabilitat i Estadisitica. Exercicis I

Alfonso Garcia Barbancho y Vicente Lozano .- Estadística Teórica

R.S & D.L. Rubinfeld .- Econometric Models and Economic Forecasts.

Software

Microsoft Excel