UAB
Universitat Autònoma de Barcelona

Protection Systems

Code: 104046
ECTS Credits: 6

2025/2026

Degree	Type	Year
Prevention and Integral Safety and Security	OT	4

Contact

Name: David Zabas García

Email: david.zabas@uab.cat

Teaching groups languages

You can view this information at the end of this document.

Prerequisites

This subject does not have any pre-requirement

Objectives and Contextualisation

Consolidate and expand knowledge acquired, in previous years, in various subjects.

Bring them to the practical application level and prepare the student for immediate use of labor requirements.

We will deal with the applications of electronic security, such as physical, human and logical security, in the part corresponding to the patrimonial security manager; Covering all this with "business intelligence" and the issues related to "predatory" counter-marketing, industrial espionage, and crisis and contingency plans, and command boards.

The theoretical content will be reinforced and accompanied by practical exercises.

The students will help to shape the subject, depending on their concerns and manifest preferences.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Apply the legal regulations governing the sector of prevention and integral security.
- Be able to adapt to unexpected situations.
- Carry out analyses of preventative measures in the area of security.
- Efficiently manage human resources.
- Generate innovative and competitive proposals in research and in professional activity developing curiosity and creativity.
- Identify, manage and resolve conflicts.
- 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.
- Respond to problems applying knowledge to practice.
- 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.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Use the capacity for analysis and synthesis to solve problems.

Learning Outcomes

1. Analyse the situation and identify the points that are best.
2. Be able to adapt to unexpected situations.
3. Critically analyse the principles, values and procedures that govern professional practice.
4. Diagnose the situation of integral security in companies and organisations.
5. Generate innovative and competitive proposals in research and in professional activity developing curiosity and creativity.
6. Identify, manage and resolve conflicts.
7. Plan and manage prevention and security in accordance with the prevailing legislation applicable in the sector.
8. Propose new methods or well-founded alternative solutions.
9. Propose projects and actions that incorporate the gender perspective.
10. Propose viable projects and actions that promote social, economic and environmental benefits.
11. Respond to problems applying knowledge to practice.
12. Select the minimum resources for efficient risk management.
13. 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.
14. 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.
15. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
16. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
17. 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.
18. Undertake collaborative management of private security plans.
19. Use the capacity for analysis and synthesis to solve problems.

Content

U0 - Concepts, Regulations and Legal Application to Sectors.

Introduction to Security Systems.

Risk analysis.

Regulations and legal application by sectors.

Intelligence applied to Security.

U1 - Access Control, Physical Security, Biometrics

Access control applications according to the environment.

Physical Protection.

Access control systems for people, vehicles and objects.

Applied technologies.

Access control equipment for doors

U2 - Detection Teams.

Connection of detection systems.

Alarm Centers.

Keyboards.

Configuration example.

Point detectors.

Microwave.

Infrared.

Perimeter detection systems.

Video detection systems.

System integration.

U3 - Video Surveillance Systems (SVV).

Typology of facilities.

SVV cameras.

opticians

Video transmission methods.

IP video systems.

Image compression.

Video Communications Protocols.

Recorders.

Cameras with resolutions higher than 4K.

Vision in very low light environments.

Dynamic range and backlight treatment.

Image analytics.

Management software.

License Plate Recognition (LPR).

Artificial intelligence.

U4 - Public address system.

Typology of facilities.

Dissuasive loudspeaker.

Public address system for emergency, evacuation and/or confinement.

U5 - Security Services.

Preventive Maintenance.

Corrective maintenance.

Predictive Maintenance.

All risk maintenance.

Alarm Receiving Center (CRA).

Control center.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Videoconference with the active participation of the students	6	0.24	2, 3, 1, 4, 11, 5, 18, 6, 7, 8, 9, 10, 17, 16, 15, 13, 14, 12, 19
Type: Supervised			
RESOLUTION OF DOUBTS ON SUBJECT AND PRACTICES	24	0.96	3, 1, 11, 5, 18, 8, 10, 17, 16, 15, 13, 14, 12, 19
Type: Autonomous			
Resolution of practical cases. Realization of works Personal study	120	4.8	2, 3, 1, 4, 11, 5, 18, 6, 7, 8, 9, 10, 17, 16, 15, 13, 14, 12, 19

Teaching language: spanish (spa)

The autonomous activities will correspond to both the personal study and the resolution of the exercises and works proposed by the teacher. Each student will have to do research on documentation of the subjects

related to the subject matter of study and personal consolidation work about what has been presented in class (programmed readings, individual exercises). In addition you will have to follow up and study different exercises and practical cases.

The assessment activities will evaluate the knowledge and competences acquired by the students, in accordance with the criteria presented in the following section.

Tutorials with the teaching staff will be arranged by email

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Evaluation of the works requested, made and presented by the student	50%	0	0	2, 3, 1, 4, 11, 5, 18, 6, 7, 8, 9, 10, 17, 16, 15, 13, 14, 12, 19
Theoretical tests and individual practices: Oral written tests that allow to assess the knowledge acquired by the student.	50%	0	0	2, 1, 4, 11, 6, 7, 8, 17, 16, 15, 13, 14, 19

CONTINUOUS ASSESSMENT

1- Periodic exercises

Throughout the course, assignments and exercises will be requested. It is essential to deliver these within the deadlines indicated by the final evaluation. The delivery of the 2 exercises proposed to evaluate the subject will be required. The non-presentation on time will evaluate as 0 (zero). These evaluable works can be proposed to solve directly in theoretical or practical class days.

They will be graded from 0 to 10, an average will be made between all of them and they will have a specific weight in the overall subject of 50%.

2- Theoretical tests - individual practices

It will be done throughout the course 1 exam. It will have theoretical and practical part. The specific weight of the exam is 50% of the overall course.

The total weighted average must be 5 points or higher in order to pass.

SINGLE EVALUATION

Students who opt for the single evaluation will take a final synthesis test of all the content of the course (50%) and will hand in a document containing the solutions to the PECs of the course (50%).

The date for this test and the delivery of the work of the subject will be the same scheduled in the timetable for the last continuous evaluation exam.

The same recovery system will be applied as for the continuous evaluation.

EVALUATION OF THE STUDENTS IN SECOND OR MORE SUMMONS

Students who repeat the course will have to take the scheduled tests and exams and hand in the course work on the dates indicated in the Moodle classroom.

SECOND CHANCE EXAMINATION

The student who does not passthe course, who does not reach 5 (total) out of 10, according to the criteria established in the two previous sections may take a final exam provided that the student has been evaluated in a set of activities, the weight of which is equivalent to a minimum of two thirds of the total grade of the course. If the student has not been evaluated of these two thirds because he/she has not taken the tests, he/she will obtain a grade of Not Presented, without the possibility of taking the final exam.

In this exam the whole of the contents of the subject that have not been passed in the continuous evaluation will be re-evaluated.

In the case of passing the final exam, the course will be approved with a maximum of 5, regardless of the grade obtained in the exam.

CHANGE OF DATE OF A TEST OR EXAMINATION

Students who need to change an evaluation date must submit the request by filling out the document that can be found in the EPSI Tutoring Moodle space.

Once the document has been filled in, it must be sent to the professor of the subject and to the coordination of the Degree.

REVIEW

At the time of each evaluation activity, the faculty will inform the students of the grade review mechanisms.

For single evaluation students, the review process will be the same.

NOT ASSESSABLE

If you have not been evaluated by these two thirds because you have not taken the tests or submitted the work, you will obtain a grade of Not Assessable as established by the EPSI Evaluation Regulations, without having the possibility of taking the final recovery exam.

AI

In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of the assignment, provided that the final result reflects a significant contribution from the student in terms of analysis and personal reflection.

The student must clearly identify which parts were generated with this technology, specify the tools used, and include a critical reflection on how they influenced the process and final outcome of the assignment. Lack of transparency in the use of AI will be considered academic dishonesty and may result in a penalty on the assignment grade, or greater sanctions in serious cases.

OTHER CONSIDERATIONS

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the event that the student performs any irregularity that may lead to a significant variation in the grade of an act of evaluation, this act of evaluation will be graded with a 0, regardless of the disciplinary process that may be instigated. in the event that several irregularities occur in the acts of evaluation of the same subject, the final grade of this subject will be 0 ".

If during the correction there are indications that an activity orwork has been done with answers assisted by artificial intelligence, the teacher may supplement the activity with a personal interview to corroborate the authorship of the text.

If there are unforeseen circumstances that prevent the normal development of the course, the teacher may modify both the methodology and the evaluation of the course.

Due to unforeseen circumstances that prevent the normal development of the subject, the teaching staff may modify both the methodology and the evaluation system of the subject.

Bibliography

Law 5/2014, of 4 April, on Private Security. (Official State Gazette, 2014).

Royal Decree 2364/1994, of 9 December, approving the Private Security Regulations. (Official State Gazette, 1994).

ORDER of April 23, 1997 by which certain aspects are specified in the matter of security companies, in compliance with the Law and the Regulation of Private Security.

Order INT/314/2011, of 1 February, on private security companies. (Official State Gazette, 2011).

Order INT/316/2011, of 1 February, on the operation of alarm systems in the field of private security. (Official State Gazette, 2011).

Order INT/317/2011, of 1 February, on private security measures. (Official State Gazette, 2011).

Order INT/318/2011, of 1 February, on private security personnel. (Official State Gazette 2011).

Order INT/826/2020, of 3 September, by which modify in relation to deadlines of adequacy of measures of electronic security.

IRP/198/2010, of 29 March, which establishes the criteria for action for the maintenance and verification of security systems and communication to the police of the Generalitat-mozos de escuadra of alarm warnings.

RESOLUTION of November 16, 1998, of the Secretary of State for Security, by which approve the official models of the Books-Registry that are established in the Regulation of Private Security.

Spanish Agency for Data Protection. Guide on the use of camcorders for security and other purposes.

Generalitat of Catalonia. Police recommendations for video surveillance systems.
CGRIP-RPD-9274-V01-GUI-SPA.

Students will be given the manual prepared by David Zabas García, plus additional documentation for expansion and consultation.

Software

This subject will use the basic software of the Office 365 package and the AutoCad software (student license).

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(TE) Theory	1	Spanish	second semester	afternoon