

**COURSE DATA****DATA SUBJECT****Code:** 36641**Name:** Dissemination of scientific and technological information**Cycle:** Undergraduate Studies**ECTS Credits:** 4.5**Academic year:** 2025-26**STUDY (S)**

Degree	Center	Acad. year	Period
1334 - Degree in Journalism	Facultat de Filologia, Traducció i Comunicació	4	First quarter

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1334 - Degree in Journalism	Periodismo especializado	COMPULSORY

**COORDINATION**

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**SUMMARY**

This subject, which belongs to the module of compulsory subjects, introduces the students to the complex relationship between science and the media when it comes to disseminating scientific and technological knowledge. An approach is also made on the history of science dissemination, to teach the resources and techniques used in the different styles of dissemination. At the same time, part of the classes is devoted to the study of scientific and popular science genres, to familiarize students with the terminology, documentation and steps involved in scientific production. This activity is complemented with the study of the resources of scientific dissemination in other media, such as television, radio, or social media.

The aim of the subject is to provide students with theoretical and practical training in the main tools for popularizing scientific activity, but also to build awareness on the need, as future journalists, to participate in scientific current affairs and consider it a fundamental part of culture.

In addition, through readings, practice and explanations, topics such as the climate crisis, renewable energies, health protection, environmental conservation and biodiversity, gender stereotypes and other inequalities in science, aspects closely related to various Sustainable Development Goals (SDGs), are addressed.



## PREVIOUS KNOWLEDGE

### RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

### OTHER REQUIREMENTS

It is recommended that students have a good knowledge of the different journalistic genres.

## COMPETENCES / LEARNING OUTCOMES

### 1334 - Degree in Journalism

Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.

Students must be able to reasonably propose ideas from the basics of rhetoric, as well as to communicate through the techniques of persuasion.

Students must be able to search, select, contextualise and order any type of source or document (written, audio, visual etc.) useful for the elaboration and processing of information, as well as for persuasive communicative or fictional and entertainment uses.

Students must have acquired knowledge and understanding in a specific field of study, on the basis of general secondary education and at a level that includes mainly knowledge drawn from advanced textbooks, but also some cutting-edge knowledge in their field of study.

Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

Students should be able to defend a culture of peace and respect for the fundamental human rights within the processes of communication, specifically in regards to equality between women and men in all types of communication (informative, interpretative, semiotic, dialogic and opinion).

Students should be able to obtain and select relevant information and sources in order to solve problems and elaborate on strategies.

Students should be able to recover, organize, analyse and process information and communication with the purpose of private or collective uses through various media and supports or in the creation of productions of any kind.

Students should be able to search for, select, read, interpret and analyse both written and audiovisual texts and documents (analytically, synthetically and critically).

Students should be able to work as a team, communicate their own ideas and integrate themselves into group projects aimed at achieving results.



Students should have an understanding of own and other social, historical, economic and cultural aspects within their relevant contexts.

Students should have the capacity and creativity necessary to take expressive and thematic risks within the scope and timeframes of communicative production, applying well-founded solutions and perspectives to the development of projects.

Students should show solidarity with people across the planet, as well as knowledge of the main cultural currents in relation to individual and collective values and respect for human life.

## DESCRIPTION OF CONTENTS

### **1. Introduction to a scientific way of thinking**

Concept and methods of science. Definitions of science dissemination. Synthesis of the conflict between science and journalism. Beyond the two cultures. Scientific names, acronyms, acronyms, technical terms, neologisms. Types of studies and levels of scientific evidence.

### **2. Social perception of science**

The circulation of scientific knowledge. Models of science communication. The scientific article and its dissemination: the role of Scientific Culture Units. Sources of documentation. The dangers of misinformation in science.

### **3. Study of the journalistic genres in science communication**

The news and the scientific chronicle: forms and recommendations. The interview in science: decoding scientific language. The report as a form of popularising science. The opinion article on scientific topics and the review of popular science books. Main scientific writers: argumentative and rhetorical resources.

### **4. History of the key science communicators**

The Renaissance and its precursors. Galileo and the popularisation of the heliocentric model. The Enlightenment and the cultivation of science. Charles Darwin and the popularisation of science. Scientific dissemination in the 20th century. Women in science.

### **5. The scientific documentary**

Study of the main scientific documentaries in the field of science and technology. Study of the main science popularisation documentaries: keys and resources. Storytelling. Popular science programmes on television. Science popularisation in entertainment: films and series, podcasts, and social networks.

### **6. Museology and dissemination of science**

History of science museums. Main exhibition and communication strategies. Museological reviews in the popularization of science. Analysis of science dissemination centers and their role in popularizing scientific thought. Science museums in social networks. The scientific collections of the University of Valencia.

This content plan will be reflected in the following learning outcomes:



- Identify, analyse, and develop the ability to construct communicative strategies for political, social, cultural, economic, and scientific information.
- Apply a critical perspective (analysis, comprehension, and interpretation skills) to the topics that shape political, social, cultural, economic, and scientific-technological journalism.
- Identify knowledge of the main contemporary debates related to the political, social, cultural, economic, scientific, and technological spheres, as well as local and regional debates (territorial debates), and the forms of expression and argots used in their public construction.
- Critically analyse the elements and communicative strategies in media coverage of environmental, political, social, and health-related crises and catastrophes.
- Organise knowledge about the foundations of specialised journalism in different subject areas, its methods, and research perspectives.
- Classify the elements involved in the genesis and configuration of current political and social affairs, as well as the main theoretical approaches that analyse and study political, scientific, and social journalism.

## WORKLOAD

### PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Computer classroom practice	15,00
<b>Total hours</b>	<b>45,00</b>

### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	22,50
Preparation of lessons	30,00
Preparation for assessment activities	15,00
Resolution of case studies	0,00
<b>Total hours</b>	<b>67,50</b>

## TEACHING METHODOLOGY

### Theoretical Classes



On-site Activities: Lectures and practical sessions in the computer lab (35% of ECTS)

### Practical Classes

Off-site Activities: Preparation and completion of individual and/or group projects, study, and development of assessments (65% of ECTS)

## EVALUATION

### First call

Continuous evaluation will consist of 3 different parts:

- Science communication project on a current scientific topic (30% of the final grade)
- Class practices (30% of the final grade)
- Theoretical exam on the contents covered in class (40% of the final grade)

#### Evaluation Criteria

- Science communication project: The ability to address a science and technology communication topic, as well as applying the knowledge learned in class, will be evaluated.
- Theory: The learning of different communication strategies for science dissemination will be evaluated.
- Practices: The student's aptitude to successfully develop various modalities of genres related to scientific dissemination will be evaluated. Attendance for the practical sessions (set on the first day of class in the academic calendar) is mandatory to pass the course.

To pass the course, each of the three evaluation parts must be passed with at least 5 out of 10 points.

### Second call

Students who attend the continuous evaluation and who do not achieve the required mark in one or more parts of the course may recover the mark in the second call for exams. The marks of the parts passed are kept from the first to the second call. Under no circumstances can they be kept from one academic year to the next.

Students who have not been able to follow the continuous evaluation will be examined on the theoretical contents and will submit the individual dissemination work on the date specified by the teacher. In this case, the evaluation will be as follows:

- Dissemination work on a current scientific topic (40% of the final mark).
- Theoretical exam on the contents exposed in class (60% of the final mark).

To pass the course, students must obtain at least 5 points out of 10 in each of the two parts.



The general grading system will follow the regulations of the Universitat de València approved by the Governing Council on 30 May 2017. ACGUV 108/2017.

### **Academic honesty**

Intellectual honesty is vital in academic communities and for the fair evaluation of students' work. All work submitted in this course must be original. Work involving fraudulent collaboration or composed with the help of artificial intelligence (ChatGPT or others) will not be accepted. If plagiarism is detected in a student's evaluative work, it may be graded with a numerical score of zero and result in the suspension of the course, regardless of any disciplinary procedures that may be initiated and, if applicable, the sanction in accordance with current legislation.

Serious offenses, such as copying or facilitating the copying of work among students, irregularly accessing or prematurely obtaining exam content, facilitating or attempting to appropriate, alter, or destroy the content or results of an evaluative activity, and impersonation in exams, will also be considered serious offenses and may result in immediate suspension of the course. When such serious offenses are detected, the instructor must report them to the Degree Coordinator.

Submitting work and/or exams with spelling, typographical errors, or errors in syntax, coherence, or writing will be penalized and may result in the suspension of the test.

## **REFERENCES**

### **Basics**

Calvo Hernando, M. (2005). *Nuevos escenarios y desafíos para la divulgación de la ciencia*. Fundación Universidad Autónoma de Madrid.

De Semir, V. (2016). *La divulgación científica*. UOC.

Gregory, J. & Miller, S. (2000). *Science in public*. Perseus Publishing.

León, B. (2024). *Grandes comunicadores de la ciencia: de Galileo a Rodríguez de la Fuente*. Comares.

Russell, N.J. (2010). *Communicating science*. Cambridge University Press.

### **Complementary**



Bellés, X. (2023). Una mirada nova. El naixement de l'entomologia. Mètode.

Cortiñas, S. (2009). Història de la divulgació científica. Eumo Editorial

León, B. (1999). *El documental de divulgación científica*. Paidós.

Ramentol, S. (2000). *Els silencis de la ciència*. Edicions 3i4.

Revuelta, G., León, B., López-Goñi, I., Pérez, M., & Sanz, E. (Coords.) (2025). *Comunicando ciencia con ciencia*. Debate/Fundación Lilly.

Russell, B. (1989). *La perspectiva científica*. Ariel.