# UAB Universitat Autònoma de Barcelona

## **Science and Literature**

Code: 106240 ECTS Credits: 6

Degree	Туре	Year
2504235 Science, Technology and Humanities	OB	3

# Contact

Name: Gonzalo Ponton Gijon Email: gonzalo.ponton@uab.cat

# **Teaching groups languages**

You can view this information at the <u>end</u> of this document.

2024/2025

# Prerequisites

By obtaining the minimum of credits *in basic training subjects*, students have demonstrated to have acquired the basic competences and they will be able to express themselves orally and in writing. For this reason, any spelling and expression errors that may be committed will lead to a score decrease in the final grade.

Activities, practical sessions and papers submitted in the course must be original and under no circumstances will the total or partial plagiarism of third-party materials published on any medium be admitted. Any submission of non-original material without properly indicating its origin will automatically result in a failure rating (0).

It is also expected that students know the general rules of submission of an academic work. However, students could apply the specific rules that the teacher of the subject may indicate to them, if they deem it necessary.

It would be highly desirable -albeit in no way demanding- that the students had a clear interest in literary texts and in the theoretical debate between science and humanities.

# **Objectives and Contextualisation**

This course proposes a historical and thematic journey through the modes literature appropriation and questionin

The class emphasizes the reading, analysis and commentary of specific literary works that illustrate different mor

## Competences

- Apply knowledge of ethics to science in society and gauge the impact of technological change on people and the human condition.
- Construct discourse on scientific and technical knowledge using the linguistic resources of argument.
- Describe the interactions between art, literature and science as drivers of complex creative processes and in the dissemination of knowledge.
- Recognise and interpret the elements that integrate the material and visual culture of science and technology into the different stages of its development.
- Recognise the political, social and cultural dimension of science and technology development in the different historical periods.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

#### **Learning Outcomes**

- 1. Analyse the human, moral and emotional dimension of scientific development on the basis of literary works.
- 2. Construct discourse tailored to the different formats for debating science in the public sphere.
- Describe and evaluate the narrative models and the rhetorical strategies behind scientific discourse of great social impact.
- Describe and use the principal genres of scientific dissemination, from specialist texts to popular science texts.
- 5. Develop a critical awareness of how scientific knowledge circulates and of its dynamic status between experts and non-experts.
- 6. Formulate thoughtful interpretations of the way in which literature appropriates scientific advances and discourse and adapts them to its own purposes.
- 7. Identify the aesthetic and artistic dimension of scientific culture.
- 8. Identify the differences between scientific language and literary language.
- 9. Recognise the presence in culture of the great scientific debates of the moment.

#### Content

Introduction. The changing relationship between these two cultures

- 1. Literature and the Scientific Revolution in the Modern Era: utopias, satires and new horizons of knowledge
- 2. Positivism, progress, and its dilemmas: science fiction as a literary genre
- 3. The role of science in the exercise of power: allegories and biopolitics
- 4. Humanist pessimism: the dystopias of the second half of 20<sup>th</sup> century and the first decaces of 21<sup>st</sup> century
- 5. Representation, disbandment and transcendence of the body: literature and posthumanism
- 6. The return to nature: ecology and literature

Epilogue. Scientific outreach as a narrative artifact

## Activities and Methodology

#### Type: Directed

Lecture sessions, seminar and/or practical sessions	50	2	1, 2, 3, 5, 7, 6, 9
Type: Supervised			
Tutorials & email consultations	15	0.6	
Type: Autonomous			
Individual work (reading, studying, writing course's papers and/or doing presentations in the classroom)		3.4	1, 4, 5, 8, 6

The course follows the pattern of continued learning, with seminary-type classes.

The primary (literary) texts are submitted to discussion in class, and they will be interrogated based on the course's general premises and on historical and critical contents. Students must commit to read and reflect on the texts prior to the discussions in class, which will be led by the professor.

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**

Exam in the classroom 135%00Exam in the classroom 235%00Oral presentation in the classroom10%00	TS Learning Outcomes
	1, 2, 4, 3, 5, 7, 8, 6, 9
Oral presentation in the classroom 10% 0 0	1, 2, 4, 3, 5, 7, 8, 6, 9
	1, 2, 4, 3, 5, 7, 8, 6, 9
Paper 1 20% 0 0	1, 2, 4, 3, 5, 7, 8, 6, 9

Students must attend 2 written examn exams, each of them devoted to 50% of the syllabus, and deliver 1 medium-length written essay (between 3.000 and 4.000 words) on one of the authors, texts or problemes the syllabus contains.

The student need to obtai at least a qualification of 4 to have the right of being quified. The rstudent can only reevaluate 2 of these 3 activities.

In the event of a student committing any irregularity that may lead to a significant variation in the grade awarded to an assessment activity, she/he will be given a zero for this activity, regardless of any disciplinary process that may take place. In the event of several irregularities in assessment activities of the same subject, the student will be given a zero as the final grade for this subject.

In the event that tests or exams cannot be taken onsite, they will be adapted to an online format made available through the UAB's virtual tools (original weighting will be maintained). Homework, activities and class participation will be carried out through forums, wikis and/or discussion on Teams, etc. Lecturers will ensure that students are able to access these virtual tools, or will offer them feasible alternatives.

#### SINGLE EVALUATION

- Written exam in the classroom 1 (first half of the syllabus): 35%
- Written exam in the classroom 2 (second half of the syllabus): 35%
- Paper 1 (middle-length essay): 30%

#### Bibliography

- Aguirre, Joaquín M<sup>a</sup> (ed.), *Darwin en la ficción*, Universidad Complutense, Madrid, 2010.

- Asúa, Miguel de, Ciencia y literatura. Un relato histórico, EUDEBA, Buenos Aires, 2004.

- Bernat, Pasqual *et al.* (eds.), *Ciència i ficció: l'exploració creativa dels móns reals i dels irreals*, Talaiots, Palma de Mallorca, 2017.

- Braidotti, Rosi, Lo posthumano, Gedisa, Barcelona, 2015.

- Clarke, Bruce; Rossini, Manuela (eds.), *The Routledge Companion to Literature and Science,* Routledge, New York, 2010.

- Duran, Xavier, *La ciència en la literatura*, Publicacions i Edicions de la Universitat de Barcelona, Barcelona, 2015.

- Glotfelty, Cheryl; Fromm, Harold (eds.), The Ecocriticism Reader, University of Georgia Press, Athens. 1996.

- Haynes, Roslynn. D., *From Faust to Strangelove: Representations of the Scientist in Western Literature*, Johns Hopkins University Press, Baltimore, 1994.

- Haynes, Roslynn D., "Ciencia y literatura. ¿Ya ha acabado la guerra entre las dos culturas", *MÈTODE Science Studies Journal*, 4 (2014). https://dx.doi.org/10.7023/metode.82.3563

- Huxley, Aldous. Literatura y ciencia, Edhasa, Barcelona, 1964.

- Locke, David M., La ciencia como escritura, Cátedra, Madrid, 1997.

- Snow, Charles Percy, *The Two Cultures and the Scientific Revolution*, Cambridge University Press, New York, 1961.

- Wagensberg, Jorge, Yo, lo superfluo y el error: historia de vida o muerte sobre ciencia o literatura, Tusquets, Barcelona, 2009.

#### Software

Word, PowerPoint, Excel, Teams

## Language list

(PAUL) Classroom practices	1	Spanish	second semester	morning-mixed
(TE) Theory	1	Spanish	second semester	morning-mixed