From Frankenstein to Einstein: Contemporary Science and Society

Code: 42286
ECTS Credits: 15

2024/2025

Degree	Type	Year
4313223 History of Science: Science, History and Society	OT	0

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Teachers

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Teaching groups languages

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

Prerequisites

There are none.

Objectives and Contextualisation

To understand and critically analyze the role of science and technology in the configuration of contemporary society.
To identify the different forms that contemporary science has taken, considering its aims, practitioners, educational institutions.
To know the relevant literature on these issues.
To communicate orally and in writing scientific and historical arguments.

Competences

- Analyse the multiple approaches to science's past taken by different authors and schools, and make reasoned choices between them.
- Develop an original, interdisciplinary historical narrative that integrates humanistic and scientific culture.
- Display a sound knowledge of history so as to pinpoint the great events of the past with accuracy: authors, theories, experiments, practices, etc., and their stages of stability and transformation.
- Display rigorous, advanced knowledge of the evolution of science throughout history.
- Gather and critically assess information for problem solving, in accordance with the discipline's own analysis methods and techniques.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Work in interdisciplinary teams, showing leadership and initiative.
- Work independently: solving problems, taking decisions and making innovative proposals.

Learning Outcomes

1. Analyse in depth, from the global perspective of the module, transformative contributions such as evolution or relativity, offering an up-to-date reading in line with recent historiography.
2. Analyse particular cases of construction of the public image of science and its cultural and symbolic value.
3. Analyse the transformation, over the last century, of relations between experts and non-experts in the field of science, with regard to the legal and political dimension of these relations.
4. Connect the studies and debates on contemporary science and technology to those of political, cultural, economic and environmental history.
5. Contextualise the main historiographic debates on science and technology in the contemporary period.
6. Discuss how the boundaries between disciplines in science are marked out and maintained and the relationship with technology and other areas of human activity, such as philosophy or literature.
7. Distinguish the forms adopted by scientific activity throughout this period, both from the institutional and from the social and economic perspectives.
8. Explain the most significant changes in the different branches of scientific knowledge in the contemporary period.
9. Gather and critically assess information for problem solving, in accordance with the discipline's own analysis methods and techniques.
10. Identify and distinguish the changes that have taken place in the last two centuries in the ways scientific knowledge is produced, especially the role of the State as a patron and protector of scientific activity.
11. Recognise the specific contribution and role of industry and technology in the evolution of science, and vice versa.
12. Recognise the ways in which the changes in the relations between science, the state and industry have been reflected or enacted in the public arena and in the different artistic and communicative formats.
13. Reflect on narrative modes and the critical use of sources in the history of contemporary science and technology.
14. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
15. Work in interdisciplinary teams, showing leadership and initiative.
16. Work independently: solving problems, taking decisions and making innovative proposals.

Content

1. Introduction: contemporary knowledge and practices
2. *Frankenstein, or the Modern Prometheus*
3. *Darwin, the Power of Place*
4. Nationalism and transnationalism
5. *The Shock of the Old*
6. *Les microbes: guerre et paix*
7. The military-industrial complex
8. The Sputnik effect
9. Visible technicians
10. Museums, technology and power

11. Paleonthropology in the public sphere
12. *In Science We (Dis)Trust*
13. Resistance and activism
14. Einstein and the communication of relativity
15. Conclusions

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	93	3.72	1, 3, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14
Type: Autonomous			
Student work	257	10.28	9, 14, 16

The module combines classroom sessions, in seminar format and with student participation, with directed work (reading texts) and autonomous student work.
Each topic will be developed in two sessions, within the same week. If one of the class days is a public holiday, the class will be held on Friday.
The organisation of the topics may include lectures, student presentations, discussion of the proposed texts or audio-visual material, and group activities, among others.
The materials for the topics will be available on the UAB Virtual Campus.

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
Submission 1	20 %	5	0.2	1, 3, 2, 4, 5, 6, 7, 8, 10, 9, 11, 12, 13, 14, 16, 15
Submission 2	20 %	5	0.2	1, 3, 2, 4, 5, 6, 7, 8, 10, 9, 11, 12, 13, 14, 16, 15
Submission 3	20 %	5	0.2	1, 3, 2, 4, 5, 6, 7, 8, 10, 9, 11, 12, 13, 14, 16, 15
Submission 4	20 %	5	0.2	1, 3, 2, 4, 5, 6, 7, 8, 10, 9, 11, 12, 13, 14, 16, 15
Submission 5	20 %	5	0.2	1, 3, 2, 4, 5, 6, 7, 8, 10, 9, 11, 12, 13, 14, 16, 15

Each lecturer will assess each student on the basis of participation and work in the sessions for which he/she is responsible. Assessable activities may consist of the submission of a short essay, a classroom presentation, and/or participation in the sessions. The evaluation evidences will be submitted and graded through the Virtual Campus.

The grade will be the average of the 5 best partial grades.
In order to be assessed, a minimum of 5 partial marks must be received. If a student fails any of these tests, he/she will be able to make them up at the end of the module. The student will receive a grade of 'Not evaluable' as long as he/she has not handed in 5 evaluation 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, the student 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.

Single assessment
The student who chooses the single assessment modality will have to present a short essay corresponding to 5 of the topics of the module, corresponding to different lecturers, and to make an oral presentation of one of these essays on an indicated date, at the end of the semester. The essays and the presentation will be weighted equally.

Bibliography

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Software

No specific software is required.

Language list

Name	Group	Language	Semester	Turn
(TEm) Theory (master)	1	Catalan	second semester	afternoon