Universitat Autònoma de Barcelona

2022/2023

Science and Technology in the Modern Age

Code: 103985
ECTS Credits: 6

Degree	Type	Year	Semester
2500241 Archaeology	OT	3	1
2500241 Archaeology	OT	4	1
2500501 History	OT	4	1

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Prerequisites

None

Objectives and Contextualisation

On completing this subject, students will be able to: interpret and understand the issues involved in science history and use technical and documentation tools to understand science. The purpose of this subject is a) provide an in-depth overview of science and technology during Early Modern times, and b) offer an essential perspective to contextualize and understand the events of the entire history of mankind.

Competences

Archaeology
- Contextualizing and analysing historical processes.
- Respecting the diversity and plurality of ideas, people and situations.
- 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 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.

History
- Contextualizing the historical processes and analysing them from a critical perspective.
- Respecting the diversity and plurality of ideas, people and situations.
- 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 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.

Learning Outcomes

1. Identifying the context of the historical processes.
2. Identifying the specific methods of History and its relationship with the analysis of particular facts.
3. Identifying the specific methods of history and their relationship with the analysis of particular facts.
4. Interpreting and analysing documentary sources.
5. Interpreting material and documentary sources.
6. Interpreting material sources and the archaeological record.
7. Mastering the diachronic structure of the past.
8. Using specialized knowledge acquired in an interdisciplinary context when debating.
9. Using the specific interpretational and technical vocabulary of the discipline.
10. Using the specific technical and interpretational vocabulary of the discipline.

Content

Recent historiographical trends

Periodisation

Revolutions and continuities. Astronomy, medicine, natural sciences, alchemy, chemistry, physics.

Scientifics utopias and Science Fiction.

Documentation and technical tools

Methodology

To achieve the established objectives, this subject involves both lectures and practical classes.

- Students must keep abreast of the news and information published on the Virtual Campus / Moodle.

- All activity deadlines are indicated in the subject's schedule and must be strictly adhered to.

- The work students carry out mainly consists of lectures, reading assignments and exercises to be performed in class

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			
Exercices	10	0.4	1, 2, 3
tutorials	30	1.2	1, 2, 3
Type: Supervised			
Seminars, visits and presentations	10	0.4	8
tutorials	10	0.4	
Type: Autonomous			

Personal study	48	1.92	8, 7, 1, 2, 3, 4, 5, 6, 9, 10
Research and reading. Preparation of exercices	30	1.2	8, 7, 1, 2, 3, 4, 5, 6, 9, 10

Assessment

30% Exam First Half Semester

30% Exam Second Half Semester

30% Text reviews

10% Attendance

Assessment is continuous. Students must provide evidence of their progress by completing tasks and tests.

At the time of completion/delivery of each assessment activity, the teacher will inform (Moodle, SIA) of the procedure and date of revision of the grades.

Classification as "not assessable": The student will be classified as Non-evaluable when he has not delivered more than 30% of the evaluation activities.

Retake: Rwill be made on the dates specified by the faculty; will not be to improve grade; the maximum rating is 5.0. To participate in the process you must have obtained a final minimum grade of 3.5.

Misconduct in assessment 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.

In the written activities, spelling, syntactic or lexical errors are taken into account. The penalty can be between 0.1-0.2 points on the final grade for each mistake made. Repeated errors can discount.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance	10%	1	0.04	2
Essays	30%	3	0.12	8, 7, 1, 2, 3, 4, 5, 6, 9, 10
Exam	30%	4	0.16	8, 1, 3, 5, 10
Exam	30%	4	0.16	8, 1, 3, 5, 10

Bibliography

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DEBUS, Allen G. (1985) Hombre y naturaleza en el Renacimiento. Fondo de Cultura Económica. México (1ª ed. 1978).

FARA, Patricia (2009) Breve historia de la ciencia. Ariel. Barcelona

GARBER, Daniel i AYERS, Michael (eds.) (2008). The Cambridge History of Seventeenth-Century Philosophy. Cambridge University Press.

HENRY, John (2002). The Scientific Revolution and the Origins of Modern Science. Palgrave. New York.

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OLBY, G.N. CANTOR, J.R.R. CHRISTIE, M.J.S. HODGE (eds.) (1990) Companion to the History of Modern Science. Routletge. Londres.

OSLER, Margaret J. (ed.) (2000) Rethinking the Scientific Revolution. Cambridge University Press.

PESTRE, Dominique (2008) Ciència, diners i política: assaig d'interpretació Obrador Edèndum. Santa Coloma de Queralt.

ROSSI, Paolo (1998) El nacimiento de la ciencia modernaen Europa. Crítica. Barcelona.

SOLIS, Carlos; SELLÉS, Manuel (2005) Historia de la Ciencia. Espasa. Madrid.

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Software

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