

Academic Year: (2024 / 2025)

Review date: 09-05-2024

Department assigned to the subject: Humanities: History, Geography and Art Department

Coordinating teacher: UÑA RUANO, RAFAEL

Type: Compulsory ECTS Credits : 6.0

Year : 4 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

None.

OBJECTIVES

The main objective of the course is that students acquire a minimum body of knowledge and skills which enable them to analyze the contribution of Science to the understanding of our current society. For this purpose, the role played by scientific paradigms will be highlighted in order to understand the phenomena and historical changes and, therefore, society as a whole. Analyzing the role of Science's recent past in historical processes is necessary to ensure a long-term vision of the scientific transformations, as a fundamental tool for the critical perception of current world problems.

DESCRIPTION OF CONTENTS: PROGRAMME

BLOCK I. CONCEPTS, METHODS & PARADIGMS

1. Problematic about science
2. Precedents I: Classical paradigms
3. Precedents II: Science in Middle Age
4. Precedents IV: Scientific Revolution (16th and 17th centuries)

BLOCK II. SCIENCE AND HISTORICAL CHANGE (18th, 19th and 20th centuries)

5. 18th Century and Enlightenment
6. 19 Century and Early 20th
7. Chemistry
8. Medicine and Public health
9. Biology
10. Physic
11. Earth´s sciences
12. Astronomy
13. Revolutionary contemporary inventions

BLOCK III. TODAY'S SCIENCE

14. Triumph of science at today's society
15. Scientific globalization

LEARNING ACTIVITIES AND METHODOLOGY

The course combines lectures and practical sessions. The essential aspects of the course topics are taught at the lectures, considering different approaches and reflections that allow a deeper development of the subject, and presenting texts and basic bibliography. The practical classes are focused on the reading and analysis of texts, images and other significant documents. It will be strengthened a system of active teaching, involving the students in the learning process - It will also combine activities in class with the use of external resources and references, promoting the use of libraries and technological means and encouraging the exchange of critical views among students.

TUTORING SYSTEM : 2 hours per week. Analysis and guidance on any subject related to the syllabus and class, practices and papers.

ASSESSMENT SYSTEM

% end-of-term-examination:	60
% of continuous assessment (assignments, laboratory, practicals...):	40

A) Continuous assessment will be based on the following criteria:

*Practicum and works: 40%. There will be two types of activities:

-Individual Practicum (20%): It will be a practical exercise that relates the theoretical indications suggested in lectures with specific scientific issues that have a historical trajectory and its social consequences. This practicum has to be presented and discussed in class.

-Group assignments (20%): students will be asked to perform and present a group exercise (for example, the preparation of a work on a specific issue referred to a scientific discipline). An important part of this work will be based on constructive criticism.

*Final exam: 60%. It will assess the knowledge acquired by the student.

B) Extraordinary call: final exam: 100%.

BASIC BIBLIOGRAPHY

- ARTOLA, M., SÁNCHEZ RON, J. M. Los pilares de la ciencia, Espasa Libros, 2012
- BARONA, J.L. Ciencia e Historia, Valencia, Seminari d'Estudis sobre la Ciència, 1994
- FOUCAULT, M. Las palabras y las cosas, Madrid, Siglo XXI, 2007 (Primera ed. en 1966)
- GRIBBIN, J. Historia de la Ciencia. 1543-2001, Barcelona, Crítica, 2004
- KHUN, T. La estructura de las revoluciones científicas, Madrid. FCE., 2006 (Primera ed. en 1962)
- ORDÓÑEZ, J., NAVARRO, V., SÁNCHEZ RÓN, J. M. Historia de la Ciencia, Madrid, Espasa., 2004
- SOLIS, C., SELLÉS, M. Historia de la Ciencia, Madrid, Espasa, 2005