Universidad Zaragoza

Academic Year/course: 2023/24

25543 - Science, Technology and Society

Syllabus Information

Academic year: 2023/24
Subject: 25543 - Science, Technology and Society
Faculty / School: 103 - Facultad de Filosofía y Letras
Degree: 269 - Degree in Philosophy
587 - Degree in Philosophy
ECTS: 6.0
Year:
Semester: First semester
Subject type: Optional
Module:

1. General information

Science, Technology and Society is an elective in the area of Logic and Philosophy of Science. The subject focuses mainly on the study of the social implications of the scientific-technological phenomenon, and the interrelation between Science, Technology and Society. It addresses the different theoretical perspectives and methodological orientations related to these aspects. It seeks to show that science is a human activity. At the same time, it seeks to contribute to bridge the growing gap between the humanistic culture and the scientific-technological culture observed in our societies.

The general approach, therefore, is intended to respect the clearly interdisciplinary nature of Science, Technology and Society studies.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (https://www.un.org/sustainabledevelopment/es/),in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement: Goal 4:Quality education; Goal 5: Gender equality; Goal 10: Reduction of inequalities; Goal 11: Sustainable Cities and Communities; Goal 12: Responsible Production and Consumption; Goal 13: Climate action; Goal 16: Peace, justice and solid institutions.

2. Learning results

1) To understand the most important concepts and theories about the scientific-technological phenomenon.

2) To express reasoned meanings and conclusions from the analysis of a given situation.

3) To formally and informally relate scientific-technical aspects with the legal and political framework.

4) To formally and informally relate scientific-technical aspects with environmental and ethical aspects.

5) To formally and informally relate scientific-technical aspects with the socioeconomic environment.

3. Syllabus

PART ONE: Introduction to STS.

1. Robert K. Merton and Alexandre Koyré.

2. Ludwik Fleck, The genesis and development of a scientific fact.

3. T. S. Kuhn, The Structure of Scientific Revolutions.

4. David Bloor, Barry Barnes and the Strong Programme.

5. Harry Collins and Bruno Latour.

PART TWO:

BLOCK 1: Do we live in a technopole?

1.1 Introduction: the knowledge society.

1.2 Technocracy.

BLOCK 2: Ethics of artificial intelligence (AI)

2.1 What is AI?

2.2 Should we be afraid of AI?

2.2.1 Technological uniqueness.

2.2.2 Privacy

2.3 Is AI possible, and are there fundamental differences between humans and machines?

2.4 Can/should we attribute a moral status to AI?

2.4.1 Moral responsibility of machines

CONCLUSION: progress or self-fulfilling promises?

4. Academic activities

The nature of the subject is eminently theoretical, but it is not exempt from a practical component, so the activities will try to take into account this duality, alternating between lectures and seminars.

5. Assessment system

First call:

Global assessment test The final grade is given by the grade obtained in each of the two final papers of each of the two parts of the subject . The grade obtained for each work will contribute 50% of the final grade, in such a way that the grade of the subject is obtained from the average of the grades obtained in the two works.

- In terms of length, each paper should preferably be no longer than 7,000 words (i.e., a maximum of 14,000 words between the two papers)

- The papers will deal with a section of the syllabus or, exceptionally, with a section not covered, but from the same area of research: science, technology and society studies. -The work must also explicitly use the material examined in one or more of the topics of the two parts of the subject.

-The topic of the paper should be set sufficiently in advance for its proper preparation (it is recommended not to do it later than the first two or three weeks of the term) and always in agreement with the teaching team. The development of the work will include reports and consultations with teachers in tutoring sessions.

Second call: as indicated in the previous call.