uc3m Universidad Carlos III de Madrid

Culture and Technology

Academic Year: (2022 / 2023) Review date: 09/07/2022 11:27:38

Department assigned to the subject: Humanities: Philosophy, Language, Literature Theory Department

Coordinating teacher: BRONCANO RODRIGUEZ, FERNANDO

Type: Compulsory ECTS Credits: 6.0

Year: 2 Semester: 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

No requirements

LEARNING OUTCOMES

LEARNING OUTCOMES:

- Present and interpret results from searches in bibliography and other important sources.
- Describe the concept of material culture and the relationship it has with technological development.
- Understand the technological basis for the great cultural periods with regard to the possibilities for controlling matter, energy and information.
- Understand the most important relationships of dependency created between technology, science and culture.
- Discern and discuss the theses of technological determinism and interaction between technology and culture.
- Present your own scientific results to both professionals and the general public.
- Assess the reliability of sources, select important data and cross-check information.
- Develop teamworking skills, blend in and actively collaborate in achieving common goals.

OBJECTIVES

To know the differences and influences between technological change and cultural change.

To become familiar with the major technological transitions

To become familiar with the concepts of material culture

DESCRIPTION OF CONTENTS: PROGRAMME

Part I. Theoretical aspects of technology as a cultural form.

- Cultural evolution and technical evolution
- Dimensions of the technical control of reality: matter, energy and information.
- Technological revolutions and paradigms and economic and social transitions.
- The controversy over technological determinism in history.

Part II. The great transitions in the relationship between technology and culture.

- Technical culture and homo sapiens: from lithic cultures to the neolithic revolution.
- Writing as information technology
- The material culture of modernity
- Steam and electricity: energy technologies and romantic culture
- Modernism and the Second Industrial Revolution
- The miniaturization of artifacts and the technologies of domestic and everyday life
- Information technologies and the digitization of the world
- The fourth industrial revolution

LEARNING ACTIVITIES AND METHODOLOGY

TRAINING ACTIVITY

Directed activity:

Theoretical classes: 33 hours, 1,32 ECTS credits, Learning outcomes 6,4,2,5,

Guided learning exercises: 16 hours, 0,64 ECTS credits, learning outcomes 7,1,3,6,4,2,5.

Supervised activity:

Tutorials and work supervision: 4.25 hours, 0.17 ECTS credits, Learning outcomes 7,1, 3.

Autonomous activity:

Work elaboration and personal study 92.75, ECTS credits 3.17, Learning outcomes: 7.1,6,4,4,2,4

ASSESSMENT SYSTEM

% end-of-term-examination/test:

60

% of continuous assessment (assignments, laboratory, practicals...):

40

Delivery of essays and presentations in class 25%. 0 hours, 0 ECTS credits, learning outcomes 6,4,2,5 Partial exam 1 25%, 2 hours, 0.08 ECTS credits, learning outcomes 6.4, 2.5 Midterm exam 2 25%, 2 hours, 0.08 ECTS credits, learning outcomes 6.4, 2.5 Short-term tests during class time 25%, 0 ECTS credits, learning outcomes, 7,6,4,2,5

BASIC BIBLIOGRAPHY

- George Basalla La evolución de la tecnología, Alianza editorial, 1988
- Hans Blumenberg Historia del espíritu de la técnica, Pre-Textos, 2013
- Jacques Le Goff Por otra Edad Media: tiempo, trabajo y cultura, Taurus, 2020
- Javier de Lorenzo Un mundo de artefactos, Trotta, 2020
- Lewis Mumford Técnica y Civilización, Pepitas de Calabaza, 1934
- Lewis Mumford El pentágono del poder, Pepitas de calabaza, 1964
- Lewis Mumford Arte y técnica, Pepitas de calabaza, 1952

ADDITIONAL BIBLIOGRAPHY

- David Edgerton The shock of the old, Profile Books, 2008
- George Basalla The evolution of technology, Cambridge University Press, 1989
- Ian McNeill An Encyclopedia of the History of Technology, Routledge, 1990
- Jared Diamond Armas, gérmenes y acero, DeBolsillo, 2016

BASIC ELECTRONIC RESOURCES

- Varios . Technology and culture: http://https://www.press.jhu.edu/journals/technology-and-culture