# uc3m Universidad Carlos III de Madrid

## Women in Science and Technology

Academic Year: (2018 / 2019) Review date: 20/12/2018 22:03:08

Department assigned to the subject:

Coordinating teacher: CASTEJON SISAMON, CRISTINA

Type: Compulsory ECTS Credits: 6.0

Year: 1 Semester:

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

No previous knowledge is required

#### **OBJECTIVES**

basic knowledge of spanish language

#### **DESCRIPTION OF CONTENTS: PROGRAMME**

In each of the topics, the political and social context of each period will be presented, focusing in the technological advances developed in each one of them and in the role that the woman develops socially. We will higlight one or two women who, moving away from their traditional role have contributed to the science and technology progress.

## 0. Introduction

Detailed description of the course content and brief introduction to the history of technology in Europe. Analysis of the participation of women throughout history in the field of science and technology.

## 1. PREHISTORY AND ANCIENT AGE

- 1.1 Prehistory and protohistory: Paleolithic, where the first developments of tools are made until the appearance of writing (protohistory). The role of women in each of its stages. Female representations. Protohistory in Spain: the importance of women in Iberian society.
- 1.2. The old age: The development of technology in Greek society. The role of women in the times of Socrates and Aristotle. Participation of women in the philosophical schools of ancient Greece. The Roman Empire: society and technology. The woman in Roman society. Hypatia and his scientific legacy.

## 2. The average age

Historical situation, society and science in Europe. The influence of religion on society and on women in the middle ages. The woman: different social classes and different liberties. The first universities.

#### 3. THE MODERN AGE

Historical and social context in Europe in the period between the SVI-XVIII centuries.

- 3.1 Renaissance (16th and 17th centuries). Development in science and technology in the Renaissance. The role of women in this period. Women who stood out in this period
- 3.2 Illustration (XVIII century). Development in science and technology in the century of reason. The role of women in this period and women who excelled in the sciences.
- 4. THE INDUSTRIAL REVOLUTION. political and social context during the industrial revolution. Technological and scientific advances, the steam engine. The importance of women in this period. Ada Lovelace, the first programmer.
- 5. CONTEMPORARY AGE. The Europe of the twentieth century, The role of women in society and in science and technology. Great scientific and technological advances at international level. outstanding women in different fields.
- 5. PIONEERS OF TECHNOLOGY. Description of women who at different times have been considered

pioneers in different scientific and technological areas. Their achievements and difficulties in becoming a name in society.

- 6. WOMEN RECOGNIZED BY THE COMPANY. description of those women who have had some recognition by society through awards and / or official recognition. In this chapter we will also talk about those women who, even though they have participated in highly recognized research by society, were excluded from public recognition because they are women.
- 7. CURRENT REFERENCES. enumeration of different women who today are recognized for their achievements and who are currently working in areas of science and technology.

#### LEARNING ACTIVITIES AND METHODOLOGY

WORK IN TUTORIES, AT SCHEDULE TO BE INDICATED AT THE BEGINNING OF THE COURSE TED-Talks videos and lectures will be projected during the lectures in order to encourage debate and participation

### ASSESSMENT SYSTEM

The evaluation system is as follows:

60 % of the final mark: continuous assessment (work, participation, class attendance, oral presentations, films or texts comments, etc.)

40 %: final work or final exam

The final test will consist on a written individual work (report) and an short oral presentation of the report.

The continuous evaluation will consist on the small tests during the course and the participation in debates

the partial notes of these tests will be published during the weeks to see the evolution

Important Information. Deduction from the student's overall mark may occur in case of unexcused absences:

1 unexcused absence: -0.3

2 unexcused absences: -0.5

3 unexcused absences: Failed grade.

## **BASIC BIBLIOGRAPHY**

- Artola, Miguel (1923- historia de europa, espasa, 2007
- Budin, Stephanie Lynn Women in Antiquity: Real Women Across the Ancient World, Routledge, 2016
- Carpentier, Jean Breve historia de Europa, alianza, 2012
- Hoogensen, Gunhild (1966-) Women in power: world leaders since 1960, Praeger,, 2006
- Muñoz Páez, Adela Sabias, La otra cara de la ciencia, DEBATE, 2017
- Rita Levi-Montalcini, Giuseppina Tripodi Las pioneras: Las mujeres que cambiaron la sociedad y la ciencia desde la Antigüedad hasta nuestros días, Editorial Crítica..
- Rosa Mª Claramunt, Teresa Claramunt Mujeres en ciencia, UNED.

### ADDITIONAL BIBLIOGRAPHY

- Budin, Stephanie Lynn Women in Antiquity : Real Women Across the Ancient World, Routledge, 2016
- Hoogensen, Gunhild Women in power : world leaders since 1960, Praeger,, 2006